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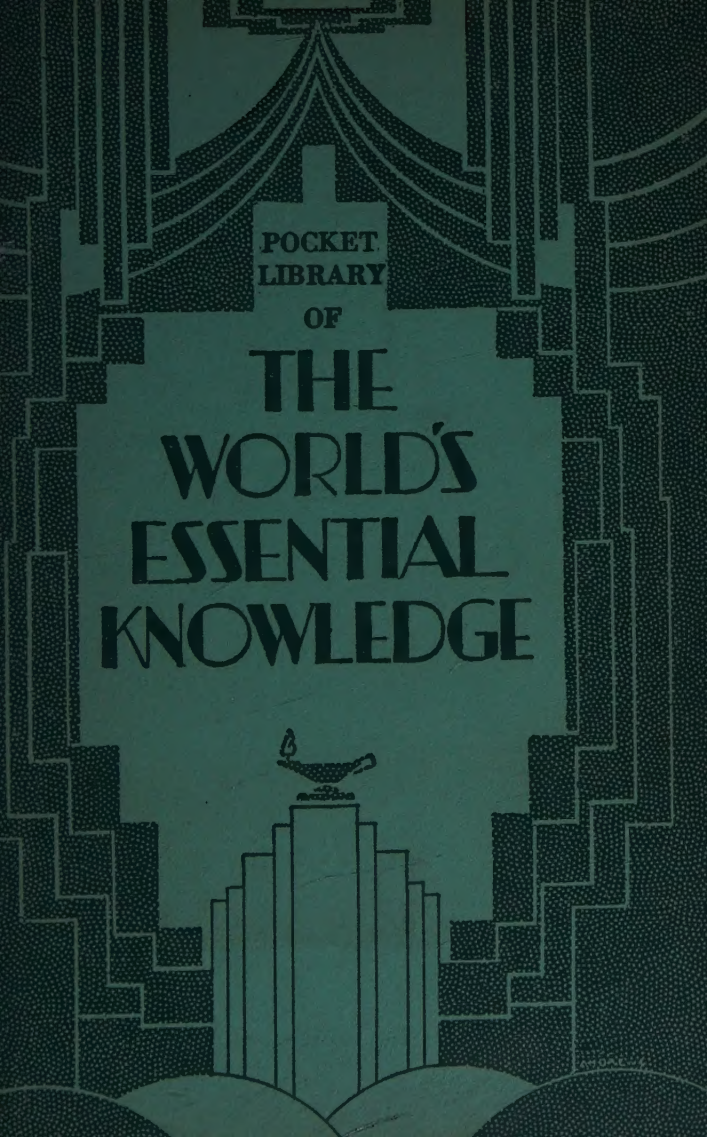

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OUTLINE OF PHILOSOPHY

PART II

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VOLUME VI

OUTLINE OF PHILOSOPHY

PART II

By CHARLES GRAY SHAW, PH.D.
PROFESSOR OF PHILOSOPHY, NEW YORK UNIVERSITY

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NEW YORK *and* LONDON

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PART II

II

IRRATIONAL SCHEMES

(Continued)

Pragmatism

In taking up Pragmatism, one is supposed to employ due documentation and thus note that the term was first used by Mr. Charles Peirce in an article which appeared in the *Popular Science Monthly* in January, 1878. When he used this term, the author further indicated its meaning as that of philosophical method in the light of which we should consider the practical consequences of theoretical conclusions. This was little more than a suggestion of how speculation might be carried on, and might have amounted to nothing had not William James adopted it twenty years later to glorify it with literary style and magnify it with philosophical meaning. Now it turns out that, as James said, it is only a "new name for an old way of thinking." It is, at any rate, the special name for a method which in the

past has been perhaps little more than a mood. Something deep-seated in human nature cries out for Pragmatism, which emerges into human thought because there is a demand for it, not because gentlemen write articles for popular periodicals.

Philosophy by Another Name

While we must assign credit or discredit to our century for the discovery and use of Pragmatism as a new method rivaling old ones, we cannot ignore the fact that the pragmatic quality adheres to our thought, which is always something more than a clear-cut process in a restricted field. It is only because Intellectualism eliminates these natural accessories when it employs abstraction that the circumstances of our human cognition are lost to view. If it had not been that Socrates used abstraction in order to get at knowledge by way of general definition, philosophy might have followed Protagoras, who was pragmatic to the extent that he turned away from the abstractions of both physics and psychology and made man the measure of all things. This is, indeed, the pragmatic tone, and this the spirit which one indulges when he makes knowledge subjective and relative. However, if Protagoras had been a Pragmatist instead of a Sophist, he might have realized that the consequences of such subjectivism, as these were likely to appear

in politics and ethics, were far from fruitful ones.

As an old way of thinking, Pragmatism in the larger sense has affected even Rationalism to the extent of casting a shadow of doubt upon its most certain principles. Let logic lay down the Law of Identity, and it is still an open question why we should accept the dictum that, "Whatever is, is." We feel, perhaps, that it is in harmony with our personality, for we say, "A is A" in the same spirit that we say, "I am I." Or identity yields a feeling of satisfaction which could not arise in a wonderland where things might be what they were not. There may be, also, intuitive grounds for accepting the principle; something inscrutable appreciated, rather than something explicitly thought. Once we have made what we will call the assumption of identity, the fullest, most favorable consequences follow. Or, in that most classic of all syllogisms, which proves the mortality of Socrates from the mortality of man, we may find it difficult to prove our major premise—that all men are mortal—but it affords a very convenient way of reasoning just the same.

The Rationalist as Pragmatist

The pragmatic character of Rationalism should not be ignored in the case of the most commanding of scientific discoveries, the Copernican as-

tronomy. Once the motion of the earth and relative rest of the sun are assumed, as they are so readily to-day, the astronomical consequences follow with mathematical precision. But the original assumption made by Copernicus himself seemed to him absurd as it struck his contemporaries as dangerous. It was quite the opposite of self-evident; but where it lacked immediate plausibility it had a prospective value, since it might turn out to be fruitful. Certainly the calculations of Copernicus in his attempt to show the revolution of certain celestial bodies cannot be taken as final any more than the reason which Newton assigned when he made gravitation the cause of these phenomena. But, in the language of Pragmatism, the theories of Copernicus and Newton worked, and still do provide scientific satisfactions, even when the Newtonian view is beginning to look a bit old-fashioned. In the spirit of caution, we speak of such physical theories as "good" theories, just as we refer to an accepted form of pronunciation as good pronunciation; for, we hesitate to indulge in such absolutistic expressions as true theory and correct pronunciation.

The inability or unwillingness of the mind to make a clear distinction between good and true, as also to keep consequences away from conclusions, appears more vividly in the field of experience, which is the precinct par excellence of

Pragmatism. Experience itself, since it has not undergone the process of abstraction peculiar to rationalized thought, is a mixture of theoretical and practical, a combination of the practically good and theoretically true, and the common field of mental observation and volitional activity. This makes it possible for the Pragmatist to settle down beside the Empiricist, and to avail himself of the arguments which the Empiricist has ever used in his opposition to *a priori* reasoning. Thus it might seem as tho the practical were the same as the perceptible. There is, however, a difference between the two. The Empiricist tends to repose in the present agreement between things and the ideas that are thought about them, and the way this immediate relationship has established a precedent. The Pragmatist tends to start with present experience and then look toward the future with the idea that our ideas will work out in a satisfactory manner and produce the desirable consequence.

Empiricism Quite Pragmatic

Now, the usual procedure of Empiricism, as we have seen, is such as to involve a certain degree of the prophetic. When Sir David Brewster discovered that the cause of color in certain substances was due to their form, he looked beyond the mother of pearl in which he had observed it to the alien substances of beeswax,

balsam, and the like, in which it was to be found. When Count Rumford and the others who experimented with heat and motion advanced from simple observation to exact experiment, they were futuristic in their expectation of a degree of novelty in even the mechanistic order. And when investigators in the social sciences cast about for the causes of crime, war, poverty, and the like, their methods are not at all deductive, only partly inductive, and largely pragmatic.

With the Mysticism of both Eucken and Bergson, there is at least a suggestion of the pragmatic in that both of them use some method other than that of Intellectualism. In Eucken's case, however, Pragmatism is only in part discernible, since he avails himself of experience only for the purpose of emancipating the immediacies of spiritual life, in which he seeks ideals rather than utilities. He would exercise the belief in a unified spiritual order, not a series of beliefs in particular things in nature and society. Bergson, as we have seen, surrenders to Pragmatism for the time, but that is only for the purpose of showing how intelligence came into being. He is an "Instrumentalist" in the sense that he sees in the intellect a light held up over the field of action; but the theoretical results which this light reveals, being those of a purely geometrical character, are abandoned as soon as

they are found. Pragmatism is thus more a means of dislodging the intellect than of establishing intuition, the true ground of knowledge.

In addition to these stated forms of reasoning as they appear in distinct theories of knowledge, there are various human concerns in which a liberal use of Pragmatism is apparent. Life must carry on in a somewhat reasonable way, and since there is no opportunity for the free exercise of any intellectualism, man will avail himself of practicalism. He will take up lines of activity which look promising, or maintain such forms of conduct as have shown themselves serviceable. Long after their fictitious character has been discerned, they will be retained because of their usefulness under the circumstances. Those who adhere to these practical views may never have scrutinized their grounds, or, if they have looked into the logic of their beliefs, may be somewhat ashamed of it. But Pragmatism is fairly plausible, especially when we realize that we are confronted usually by conditions rather than theories. Aren't we all Pragmatists?

Political Pragmatism

In the political order, where men must be ruled and things administered, the statesman cannot wait until a philosophy of rights has determined the just relation of man to man and

men to the State. They must avail themselves of the conception at hand and use it for the sake of its practicality. An enlightened Englishman would hardly subscribe to the doctrine of the divine right of kings or even to a monarchical form of government, but here is the king and here his monarchy, and the practical problems of State can be solved in the form of a good consequence from a false premise. A radical American may have as little theoretical belief in the divine character of democracy in a land of mixed races and varying degrees of intelligence, but the business of the nation can be carried on better by means of such an inaccurate notion than by the attempt to recast politics more after the manner of the theoretical philosopher. In such cases, we resort to good beliefs instead of true ideas and are often surprized to observe how much that is inconsistent, if not false, can be absorbed. The body politic is surprizingly able to find nourishment in and gather strength from foods which philosophy cannot pronounce pure.

The application of Pragmatism to politics is unmistakable in modern legislation. The lay mind has long been in the habit of believing that laws were framed in the way that conclusions were formed; for, just as one deduces logical consequences from a universal premise, so the man in the street assumes that just laws are made in the light of justice as such. His assump-

tion is that any law which confronts him can be traced back to an eternal principle of rights, when it may turn out that it dates back only to the adjournment of the legislature. This is because our legislators are animated by the pragmatic spirit of that which works when applied practically to the social order. Like St. Paul, we distinguish between "things lawful" and "things expedient," and then allow expediency to exercise authority over justice.

This situation, which has given the United States perhaps a million laws of some sort, all told, is due to the pragmatic tendency in society, which does not take time to decide whether this is just and that unjust, but says, "Congress ought to pass a law" when the only obligation in sight is the real supposed expediency of uncritical legislation. This Pragmatism, this Empiricism in legislation, may afford satisfaction to those philosophers with whom consequences of an immediate sort are paramount in both theory and practise; but it cannot commend itself to those who look for rational sanctions in the things which man both thinks and does. If Pragmatism here rules *de facto,* it does not exercise authority *de jure,* and it is only our ability to absorb error which saves us even greater inconvenience than we now enjoy.

We are just as pragmatically inclined in our discussions of the social order. Can we deduce

Society from some higher conception as "synthesis" or build up the idea of it by a slow process of induction? Either of these well-known processes might be resorted to, but we prefer to be led into a social conception which practically follows the analogy of the living body, whence we regard society as an "organism" just as Leslie Stephen did some fifty years ago. And altho this conception of our race does not fully commend itself to the social philosopher, it has the advantage of working to the extent of making society intelligible to us. In like manner, we follow Herbert Spencer in his theory that Society has passed from a period of militarism to one of industrialism, altho the World War showed us that the period of militarism was not at an end and that the interests of industrialism were not wholly distinct from those of militarism. But in default of more coherent theories we decide to follow those that yield only practical certainty.

Esthetic Pragmatism

No less pragmatic are we in the conceptions we form in connection with our esthetic experience. We are directly conscious of the appearance of fitness among objects which we sense, and just as fully aware of the agreeable way in which often they affect us. But we are unable to interpret this situation in any rational man-

ner, hence we adopt views to the effect that art is imitation or play or expression. In all probability, art is no one of these, but the idea of something mimetic or spontaneous or expressionistic serves our practical needs even when they are of an intellectual sort. We cannot rationalize the beautiful as easily as the true and good, hence we are prone to subordinate it to these more stable ideas, as tho beauty were the truth of matter not so distinctly seen, or the goodness of man not so fully realized. That is, we follow the trend of logical and ethical consequence instead of drawing a line of sharp inference.

But those orthodox esthetes who used a kind of Pragmatism in effecting the logic of beauty could have little inkling of the way in which art was to abandon all set forms and give itself to expressionism generally, futurism in particular. When we ourselves, to-day, attempt any sort of justification for the exaggerations of harmony in modern music and the exploitation of technique in painting, we are most likely to assume a pragmatic point of view and thus assume that the obvious distortion of beauty in tone and color is indulged in with the pragmatic feeling that something valuable will come of all this. Altho sophisticated to an alarming degree for the esthetic mind, which is supposed to be naïve, we chose to emulate the modes of primitive

artists, who had still to arrive at the standards which we are departing from. They were in the prerationalistic period of art, we are in the post-rationalistic one. Theirs was a genuine futurism, since it led to something stable in its academic form. Ours is an experimental futurism, and we have no means of being sure that, in expressing restlessness of the time-spirit, we shall arrive at anything of esthetic worth. It is an esthetic Pragmatism which has still to realize the fruitfulness which it promises.

Pragmatism in the Pulpit

The field of religion is, of course, replete with these pragmatic references, altho it must be said that genuine religious teachers have tried ever to release mankind from them. This effort on the part of the spiritual educator is eminent in the case of the Prophets among the Hebrews and the Vedantic philosophers of the Hindus. However, that which forms the very body of religious belief is something which was not established by any process of protracted reasoning; it was rather grasped at with the feeling that it was desirable to the point of necessity. This sweet but strong impulse on the part of the most human mind was voiced almost a century ago by Emerson, in what is perhaps the most gorgeous sentence in his Essays. "What is the universal sense of want and ignorance but the fine in-

nuendo by which the soul makes its enormous claim?" Now the "enormous claims" which are put forth by the anguished heart are such that they can hardly be met by pure intellection. As far as they are of philosophical character, they are pragmatic in form; altho, as in the case of religious prophet and philosopher, the wiser minds in the religious organization make an attempt at Rationalism, as can be observed in theology.

But this unconscious Pragmatism is applicable more to general religious notions in the past rather than to the more specific Pragmatism which has become, in considerable measure, the theory and practise of the Church in America. At the present time, sociology has stepped into the place which theology seems to be vacating, and is using Pragmatism instead of Rationalism. God is more of the animating principle of human amelioration than an object of either belief or thought. The Bible, when pragmatized, is less the successive revelations of a divine spirit, more the progressive consciousness of religion in the heart of man. Religion is not regarded as something deducible from the attributes of God, but rather as a "great spiritual adventure" or "ethical experiment." The outlook of the religious mind is directed toward the future with its flexible possibilities, not toward the past with its fixed traditions. In the spirit of direct and

conscious Pragmatism, the advanced religious mind considers the moral consequences of belief rather than its metaphysical implications, which, in their scholastic form, are left to the exponents of Fundamentalism. The "universal sense of want and ignorance" is not made the basis of any "enormous claim"; it is considered as something to be supplied by religious education and social service.

Pragmatism in Morals

But the political and social, esthetic and religious expressions of the pragmatic mood, for all their zeal and vigor, are secondary to the kind of Pragmatism which emerges from the moral life of mankind. When the moral ideal is taken up in the form of ethical theory, it bears close analogy to the leading forms of intellectualism, whence Rationalism begets a kind of Rigorism, as Empiricism glides over into Hedonism. But the moral principle as such, taken in a massive way, engenders a kind of Pragmatism which rejoices in a degree of stability and dignity. The Good may be looked at either theoretically or practically, and That Which Is may be viewed plausibly as That Which Ought to Be. To be sure, this is not a pragmatic method, but it is a strong affirmation of the pragmatic spirit whence the method comes. Strong indeed, so that one might venture the assertion that, had it not

been for the mighty claim of morality to be a way to truth, especially as this was put forth by Kant's *Critique of Practical Reason,* there had been no Pragmatism at all.

As the Super-Pragmatist, Kant followed a deliberate program. He did not wait for the painful discovery that reason cannot rule the mind, but carried out its destruction. "I had to destroy reason in order to make room for faith," said he laconically. As he had inaugurated a "Copernican Revolution" in the realm of the intellect, so he conducted a Robespierrian revolution in the domain of the will and installed the "Categorical Imperative," or more-than-divine obligation. This is the lever which lifts the world; this the principle which places God, Freedom and Immortality upon high seats they had abandoned when the *Critique of Pure Reason* appeared. And now the will can reason the way the understanding tried to do, and the proofs of enormous ideas be conducted with the absolute certainty of the moral reason. This was Pragmatism, but far more.

Pragmatist in Spite of Himself

But the place in Kant's philosophy which is most fitting as an entrance for Pragmatism is that section of the *Critique of Pure Reason* where Kant considers the "Interest of Reason in the Conflict of Its Ideas." This, which is a

human interest indeed, is taken up after Kant has found that the uncritical pursuit of ideas, or categories, can lead only to contradictions, or antinomies. At this juncture Kant pauses for a pragmatic moment to inquire, as it were, how we humans must feel about the matter, only to discover that we have practical and speculative interests invested in the ideas which themselves seem to stage a conflict of their own as eagles might battle in the air.

When such questions as those of God and the Creation of the World, the Freedom of the Will and the Immortality of the Soul are under discussion, it is not merely a matter of true or false, as in an academic examination, but something of such deep, spiritual concern that the moral nature has a right to take its stand beside reason and see to it that a just decision is rendered. But what Kant introduces into the quasi-pragmatic argument as an influential factor is not the human nature of man as a creature, but the rational nature of man as a character. The result is that the decision, which is made later in the *Critique of Practical Reason,* is rendered in the light of man's nature as something so superior in its rationality that it matters not whether the decision is made by the rational intellect or the equally rational will. It is as if a good man were to follow his conscience in the

same way that a wise man follows his reason. The results are about the same.

But the foregoing consideration of Pragmatism has had to do with the general methods and habitual moods of the human mind, which expressed themselves in their own way without any attempt to exemplify a theory of knowledge. They were pragmatic by implication only, or by courtesy. The spirit of Pragmatism was not wholly in them as it is in us to-day. When, now, we come to interpret that spirit, we are brought to the realization that it is the spirit of novelty; old things have passed away and all things are become new. It is a kind of "nowadays consciousness," which, if it cannot vision any complete philosophy of history, can content itself by making caustic remarks about the Victorian period. Our century has witnessed the discovery of so many unheard-of things and effected the invention of so many undreamed-of mechanisms that it cannot content itself with a philosophy which offers no more than a Law of Identity and Method of Agreement. For ours is the *nouveau* spirit which is not to be satisfied with old-fashioned philosophies any better than with old-fashioned costumes.

The Nouveau Riche in Philosophy

It is next to impossible to record the results which applied science has worked—our twen-

tieth-century miracles—but the mention of automobile, airplane and radio will be a sufficient reminder of what science has recently accomplished. These locate us in a new order of things and fain persuade us that the history of mankind as such dates back only to the year 1901. This change has been brought about by a sudden emergence of a new spirit, not by any political and military revolution like that in France when the eighteenth century brought about its own end. When the World War came, it was more like the settling of an old account than the opening of a new one, and such is the buoyancy and self-sufficiency of our *nouveau* spirit that we have been able to absorb the unutterable frightfulness of a conflict which in another age would have ended civilization.

The sense of rejuvenation which the race appears to feel is accompanied by a feeling of sophistication, whence we believe that we have caught up with the learning of the world if not passed it. We may not know how to indicate the short-comings of older conceptions, like Euclidean geometry and Newtonian gravitation, but we are persuaded that they are inadequate and have waxed old as doth a garment. We cannot be impressed unless we are confronted with astounding views of man and nature and such as set aside all our normal expectations. When we are brought face to face with conventional views of

psychology and physics, we are like Molière's *Doctor in Spite of Himself;* for when his impromptu patient protested that the heart was on the left side and the liver on the right, he asserted with confidence, "But we have changed all that!"

The practical effects of this creative spirit which has changed all things appears everywhere; in philosophy, it shows itself in the apparent destruction of intellectualism. Our one-time concepts have sunk out of sight, and experience itself seems to be afloat like an immense Sargossa. The fluctuating, aye, fickle conception of things generally appears in mind and matter alike. No longer does a mental pattern match a material one, for mind and matter are but processes, voluntaristic and dynamical, respectively. Hence, thoughts and things cannot come to an understanding, since there are no thoughts or things to be placed in the intelligible relationship. Now, this rather riotous conception of things generally has been brought about by Evolution, or by the way Evolution has been understood and applied. We could tolerate the doctrine when it confined itself to the stellar evolutionism of Laplace, the terrestrial evolutionism of Lyell, and the biological evolutionism of Darwin; we cannot absorb it so readily when it invades the essences of mind and matter and

attempts to dictate the evolution of truths about them. That would land us in irrationalism.

At this juncture appeared Pragmatism in the form of a theory which advised us to consider only the consequences of our ideas and beliefs. It was no longer possible to make our thoughts correspond with things in any definitive way, hence it seemed expedient to entertain such notions as were working out toward practical results, "getting somewhere," or which promised to work out and arrive. Indeed, a person fond of coining novel expressions, which even so may indicate only old truths, might style the pragmatic method as a sort of "Arrivism." Now, this sort of reasoning came about because of the way that the evolutionary idea cut into the nature of things; because, as the logician would say, it laid hold of ideas in their intension as well as their extension. About all that the Pragmatist had to assume was that ideas would work out the way things had, hence he could use Evolution as his model, his ideal.

Monstrous Hypotheses

The spirit of Pragmatism is expressible in terms of a remark attributed to the Emperor Vespasian, whose writings, however, do not seem to contain it. "The most monstrous hypothesis which produces results is better than the neatest, trimmest theory from which nothing follows."

Pragmatism is thus a Vespasianism. It shows itself to be such in the way that it abandons neat and trim theories, like those of Intellectualism, because nothing follows from them; in the way that it adopts monstrous hypotheses because of their fruitfulness for action and thought. In pragmatic eyes, the endeavor to get truths from thoughts is as vain as expecting to gather grapes from thorns and figs from thistles.

The monstrosity of the method does not appear so strikingly when, in a semi-pragmatic manner, science makes use of an inclusive ether or a granular atom, since these things at least suggest something empirically wholesome. But when science avails itself of the notion that results of some sort may or might follow from preposterous assumptions, Pragmatism comes more fully into its own. Examples of this amiably monstrous method are findable in the various "Non" systems of physical speculation, as Non-Euclidean geometry, Non-Pythagorean algebra, and Non-Newtonian gravitation. The layman might suggest, if no more, that the assumption of an abysmal "Entropy" at the bottom of the universe was only another example of the colossal but profitable way of reasoning about energy and heat. Doubtless the most monstrous of all these philosophical projects is that of Evolution itself, since it produces the human brain and then tempts its possessor to believe

that he can transcend and think out the process of which he himself is a product. All of these situations in which we either find or place ourselves tend to make the universe more of a puzzle to be worked out than a problem to be solved.

In dealing with Pragmatism, whose character is indefinite as its forms are various, one finds his attitude is more likely to partake of a like or dislike than an approval or disapproval. It makes an appeal which one can affirm or reject; it does not propose an argument which one can accept as valid or deny as invalid. To do this would be to place it among the intellectualistic systems and provoke the question, "Is Saul also among the prophets?" Hence it is more after the manner of Pragmatism to "sell" us its idea than to show us its validity. Nevertheless, there is a kind of pragmatic logic, as there are individual exponents of its most distinct phases. That which is to be regretted in Pragmatism is that, apparently, it must be thought of and expressed in some special manner, as when questions are regarded in a "pragmatic" sense as they are not considered in any specially "rationalistic" or "empirical" sense. Indeed, in certain cases where the thought is far from being plain or its meaning obvious, a "pragmatic sense" may amount to a "Pickwickian sense."

In a Pickwickian Sense

The kind of Pragmatism which is most interesting because it is the farthest removed from Intellectualism is that humanistic formulation of the doctrine which indicates the persistence of Protagoras's thought when he insisted that "man was the measure of all things." That sort of thinking we recognize quite clearly as a mental attitude which Socrates tried to keep the Athenian youth from assuming when he insisted upon the necessity of general definitions as the essentials of true thinking. It is to Schiller that we are indebted for the resumption of this anthropic attitude as also for the restatement of its possible claims. In the form of what is called "Humanism," the method in question is less logical than psychological, less rationalistic than popular; it takes into strict account the fact that our thinking is colored, not black and white. It is colored by personal interest, prejudice, preference; so much so that we tend to make the wish the father of the thought. We expect this in theology and politics, but not in science and philosophy.

In the attempt to explain a theory of knowledge which we cannot so readily justify, we may point out that often we speak of one theory as being preferable to another, but what we mean is that the one so preferred is espoused by us per-

sonally as our view because it seems to be more coherent in itself, or more fully in harmony with the obtainable facts in the case. The preference in such a case is not so much a way of thinking as a manner of speaking. Even when one goes so far as to say, "Of all the definitions of art, the one which I like best is the mimetic one," one really means that the theory as such makes a certain appeal, as that of stability, which is wanting in more modern conceptions of the beautiful. One puts forth his reason rather than his personality in exercising a preference of this sort. Or when one says, "The theory of evolution by insensible variations is not in harmony with my view," he means to say that it is the view which itself rests upon other than personal grounds which he is bringing forward, not the fact that it is his view.

We are inclined naturally to personalize in our philosophy and thus speak of theories as Newtonian, Spinozistic, or Kantian; but we do not uphold these eminent opinions because of any relationship with the men whose names they bear, as tho they might be ancestors of ours, but because these minds have taught us certain propositions which we have come to regard as valid in themselves. All of this, if it be preferential, is indicative of an intellectual choice of opinions. The personal in us or our heroes is subordinate to the philosophical, which is in all and none.

The Wish Father to the Thought

But our ability to rationalize the views which we have accepted with human enthusiasm may be questioned for a time and in a way by the psychological fact that the process of cognition is not so pure as to yield straight thinking. When psychology was looked upon as "mental science," a kind of idealized cognition was taken for granted. Human volitions and emotions were practically ignored. A rationalist like Descartes regarded the will as only a secondary form of knowledge, and the emotions as things to be subordinated to reason. But, in time, the independence of both volition and emotion came to be recognized, so that what had been called mind was seen to be a mixed affair, wherein the intellect was certainly not solitary, perhaps not supreme. In time, this made room for and gave provocation to a way of thinking in which the effects upon emotion and the results upon volition might be taken into account. This extra-intellectual view of mind is now entertained by Pragmatism.

The naturalistic conception of mind has bred a humanistic way of thinking. We are bound to recognize the psychological fact that mind, as we experience, enjoy and employ it, is not identical with the process of thought which the logician either takes for granted or perfects by a

painful process of abstraction. Our minds are warm and moist; our thoughts are drawn free-hand; our theories have us in them. But the moment we recognize this psychological fact of the matter, at just that moment we are on our guard. We see that we are prone to pursue preference and feel bias; but instead of yielding to this natural tendency, we can combat or at least make allowance for it as for a sort of personal equation which must be reckoned with in our calculations. We realize that we are human, but just as fully realize that we need not, must not, indulge ourselves in the logic of humanism. Hence it is not what we actually do think but what we believe we should think which becomes our guide. In the constant conflict between the disinterested and desirable, power lies upon the side of the desirable, but authority abides with the disinterested.

In order to experience harmony between the desirable and credible, we should have to be perfect beings in a perfect world. Perhaps in many instances there is something like this accord between wish and thought. When we are dealing with near-by and limited facts of nature, we can change these to suit our will, as is done in building cities to afford us a desirable environment. Where our most petty feelings are concerned, we can check these, as we do when we accept the kind of weather which greets us in

the morning. But where nature as a whole confronts us, we must bring about a more thorough adjustment, and this must be made by the mind alone. Then we think as we realize we verily should think, willy-nilly. Two major instances of this fundamental readjustment on the part of the human understanding appear in our modern science—in astronomy and biology.

Unfavorable Reports From Science

When, at the inauguration of modern science, the modern man found himself face to face with the astronomy of Copernicus, he was placed in a predicament. The juncture was one of an old way of thinking and a new. But this did not mean merely a conflict between scientific minds such as we seem to have to-day in the academic dispute between those who uphold the gravitational systems of Newton and Einstein, respectively. It meant an inward spiritual strife between the desirable and the credible. Everything in man except his purely theoretical interest was on the side of the older view, which made the earth the stationary center of the skies. Nothing was on the side of the new astronomy but certain mathematical calculations. But in this conflict, the victory was to be on the side of the intellect, which adjusted the mind of man to the rational situation in the skies. But even to this day, it is possible to regret to the point of

emotional opposition an intellectual notion about things whereby man's home is made inconspicuous beyond words, and man himself, as a creature of earth, insignificant except in his capacity for pure thought. His science of the skies is his only defense against them. His sense of desirability is gratified in none but a purely intellectual manner.

In like manner, as tho the degradation of earth had not been sufficient to destroy man's pride in himself, modern biology deals man another blow when it points out, with no little degree of plausibility, that man himself is so distinctly a product of earth as to be evolved from its lower orders of life. Darwin finished the destructive work which Copernicus had so vigorously begun. The contemporary conflict between Darwinism and "Daytonism" may be viewed pragmatically as a conflict between the credible and the desirable. All that is human and personal within us calls out for a non-evolutionary conception of man's origin and nature; all that is rational within him affirms the undesirable, depressing view. In vain do we appeal to a feeble sense of futurism and meliorism which is supposed to cheer us with the faint thought that, in the far-flung future, the human race will profit by the natural arrangement whereby man and all that is human about him will realize a perfection at present undreamed of. Meanwhile we

can only regret the evolutionary idea, try to safeguard our rationalistic ideas from its insidious influence, and accept it only for conscience' sake as the most rational view within the present grasp of the intellect.

We can realize that we are all Pragmatists by nature, Rationalists by adoption. If the advocate of the all-too-human view of knowledge accuses Rationalism of using the bed of Procrustes into which man must be fitted by force, the defender of Rationalism may retort that Pragmatism is using the lamp of Aladdin to render the desirable credible and real. As far as Intellectualism in general may justly credit the claims of this humanistic view, it may allow the ethical to become a factor in what otherwise would be a purely rational way of thinking; but even then the ethical must be regarded as of itself so rational as to be akin to the reasoning process itself, as was the case with Plato and Aristotle, Spinoza and Kant. A utilitarian theory of knowledge can only act as perniciously as a utilitarian theory of morals.

Pragmatism as a Religion

The spiritual conception of Pragmatism extends and purifies that of the humanistic, of which one, for all his general appreciation of it, is likely to feel ashamed. The difference between the spiritual and humanistic methods of

reasoning from experience to consequences is implied by the very terms used. They suggest that, in the case of the spiritualistic mode of procedure, it is no longer the private and personal in humanity which should attempt to make itself the measure of things, but the essence of humanity as both the sum total of all human beings and that ideal of human life which man entertains about both himself and the order to which he belongs. Almost every one can distinguish between himself in the temperamental sense of that term and his selfhood, which is the implicit norm or ideal of his rational and moral nature. When this speaks, as tho the soul were expressing itself, its voice is worth heeding.

This quality of Pragmatism is discernible primarily in the great religionists, who put forth the "enormous claims" of the soul even when they must thereby advance their "monstrous hypotheses," which are essentially those of the soul itself and God. This attitude was expressed by St. Augustine in his memorable words, "Thou, O God, hast created us for thyself, and our hearts cannot rest until they rest in thee." It appears again in Pascal's utterance, "The heart has arguments which the understanding knows nothing about." It enters Pragmatism with William James in the form of "The Will to Believe." When it becomes a method of knowing, it shows itself to possess certain analogies

to reason from which in most ways it is distinct if not contrary. Like reason, this humanistic principle is co-extensive with human nature. It is for one and all, once and forever. It seeks to set aside private feeling almost as fully as Rationalism would eliminate mere opinion. It is in the philosophic mood if not the attitude.

In the case of James, who is the most eminent expounder of such spiritual Pragmatism, the method is applied at a juncture in thought instead of being used, like Rationalism or Empiricism, to deduce conclusions or form hypotheses. James knew his Intellectualism and Naturalism and realized how, in one's most critical moments, they might fail him. When, therefore, he was confronted by a cogent argument of an idealistic character and an equally consistent one offered by materialism, he reserved the right to make the idealistic choice on the ground that it "made a difference" or was more harmonious with human happiness. This was, of course, what Kant had in mind when he referred to the moral interest which reason has in the conflict of its speculative ideas. It is then, in such an emergency, that the wish may claim paternity of the thought; it may take up in an ethical manner the argument which metaphysics abandoned.

There can be little doubt that the ideals of reason are often served by the interests of the will and emotions. That which we believe ought

to be can well harmonize with what we think is. The difference will consist in the respective moods in which the ideas are pursued, as also in the different methods which are followed toward similar goals. The spiritual nature of man urges itself outward toward a conception of Godhead, which may range from an indefinite Pantheism to a fully personalized Theism. In analogous manner, philosophy, at any rate in the form of Idealism, may as thoroughly pursue the idea of Substance, the Unity of all Things, the Absolute. From this interweaving of interests arises Philosophy of Religion here, the religious philosophy of Absolute Idealism there. Of course, there will be differences of detail, in that the pragmatic believer will incline toward the personal in both himself and his object, while the rationalistic thinker will direct his vision toward the universe and away from man. But there is more likeness than difference between these two ways of adjusting the mind to the world.

Are God and the Soul Desirable?

But in the course of time, these two methods will have to separate and agree to disagree. Spiritual Pragmatism in the special form of religion will not always keep itself free from the all-too-human; rationalistic philosophy cannot forever dwell on the ideas of God and the soul. They meet at their respective heights, but

when they descend it is to different levels and foreign fields. As for the soul and God, they are true ideas or false, and reason must decide. In the case of a St. Augustine, a Pascal, a James, the profundity of emotion may be sufficient to have these men feel their way to the spiritual order which others have to establish by intellectual means. Then, further, it is quite possible that to some the ideas of God and the soul may appear desirable beliefs, to others undesirable. In such cases, the breach between the desirable and credible is so great that philosophy must turn away from the softer method of reasoning and devote itself to a more severe one than Pragmatism provides. The failure of the practical value to establish its verity will appear when different classes of men, who have the same process of reasoning, differ in their practical purposes and emotional reactions.

A political radical, who has observed some of the ill effects of established religion, will often be found denying the validity of the ideas in question, because they seem inimical to his revolutionary program. His reasoning is to the effect that religion is harmful, its postulates dangerous to human welfare. For, as long as man is led to believe in a Divine Judge who executes righteousness for all that are oppressed, just so long will man refrain from taking into his own hands the human execution of justice. Likewise, he

reasons, when men believe that in the future life they will be compensated for the evils suffered on earth, they will be less likely to attempt the removal of the evils here and now. In these ways, the ideas of God and soul, instead of bettering human conditions, make them worse. Meant for the consolation of the heart, they act as drugs upon the mind which is thus rendered incapable of clear thinking and forceful action. From the pragmatic viewpoint of the radical, the ideas of God and soul are deemed untrue because they are found undesirable. Thus it is that one who rebels against the established order, if only in spirit, will speak of himself as an "atheist" when his philosophy, far from delving into divine mysteries, has ever confined itself to economic problems and political considerations. In such cases, where Pragmatism acts unfavorably to belief, it becomes necessary to take speculative questions out of humanistic hands and restore them to pure philosophers who are minded to think about them in complete independence of desire or aversion.

To this it might be replied that it is not instinctive religionists, mystical by nature, or political radicals, made morbid by their misfortunes in the State, who are to be taken as criteria of the desirable-credible here, the undesirable-incredible there; but the soul of man as such, with its native aspiration toward the

spiritual. Such an appeal to the spiritual nature of mankind, free from prejudice and pure in purpose, may make spiritual Pragmatism appear more plausible. For now the soul of man is viewed as expressing that profound and meritorious thing which Spinoza called the intellectual love of God—*amor dei intellectualis.* But the effect of such an appeal, while apparently still pragmatic, is really intellectualistic, since it assumes an emotional attitude, and that a severe one, on the part of one who has already arrived at the ideas of God and soul by other than pragmatic paths, or by ways of pure cognition aiming at the verity of ideas apart from any human values they may result ultimately in having.

Darwinism and Pragmatism

Pragmatism takes on a more scientific form when it turns away from the felt needs of human life to the more realistic demands which that life makes upon the mind when man is considered as a creature of nature. This phase of Pragmatism is represented by John Dewey, who seems to philosophize in the mood of Mill and after the manner of Herbert Spencer. In the case of all three of these men, something other than philosophical interest was at work in connection with their serious speculations about the world. Mill was actuated by economic and

ethical interests, Spencer by sociology, and Dewey has worked in the interests of education. These interests may account for the practicality of their views. Three different individuals with mathematical, physical and chemical interests in mind, even tho they appreciated the importance of the practical, would hardly have derived Pragmatism from their investigations.

With the three mentioned as "practicalists," there is manifest a marked prejudice in favor of utilitarianism in ethics. When, in the special case of Dewey, this utilitarianism passes over into the field of speculative philosophy, one may question the wisdom of using the same principle over again. The utilitarian is supposed to be an Empiricist in his theoretical philosophy and to leave utility to the affairs of the will, where the idea of practical consequences is more to the point. There can be a utilitarian theory of morals, but not so easily can there be a utilitarian theory of metaphysics or speculative philosophy.

The third and most essential form of Pragmatism may be spoken of as "Evolutionary Pragmatism" to distinguish it from the humanistic and spiritual forms which the doctrine has already received. These three formulations of the pragmatic conception of knowledge indicate degrees of depth in which the doctrine has taken root. It has proceeded, by descent, from what the individual may think to what mankind does

think, thence to what the mind must think. The wishes of the individual, or of mankind taken individually, do not effect any firm connection between the desirable and credible; the systematic desires of the race as a whole as these are evinced by the historic beliefs of mankind, bring the ideally desirable and theoretically credible nearer together. But the dictate of nature herself, when she insists that we think in terms of actual needs in the struggle for existence, appears to identify intellectual activity with physical necessity. We do not think as we choose or as we deem desirable, but as we are forced to do. First, it is claimed that psychologically we do think in terms of natural exigency; secondly, when we think successfully we arrive at truth logically considered. Now, one might assent to the first proposition on the basis of fact, and dissent from the second on the ground of inadequacy, inconsistency, and irrelevance.

There can be little doubt that, in our usual modes of speaking, we do employ the language of Pragmatism. We may feel that, in referring to ideas, we should confine our vocabulary to the strict terminology of "true" and "false," or words definitely equivalent to them. Just as thoroughly do we realize that we make use of synonyms whose significance may lead us far afield from the straight and narrow path of intellectualistic procedure. But how pedantic,

how pedagogical to speak with this lips and utter nought but "true" or "false," "correct" or "incorrect!" Life was not made for logic, nor were we placed on our planet just to prove the truth of things. Realizing all this, we liberalize the language of the schools and with our human vernacular express philosophical views in popular terms. In so doing, we hesitate not to wander over into the fields of goodness, beauty, utility, what-not, so that our speech may have warmth, our language color, our tone more than usual vitality. We speak of theories as being "good" or "bad." We cite "fine examples" and "neat conceptions"; just as readily do we speak of the "*value* of *x*" when we mean the numerical equivalent of an alphabetical symbol, and "work out the result" of a problem when we know that we are not working and that there is no result at the end of the intellectual exercise. It is our manner of speaking, and little did we dream that a school of serious logicians would avail themselves of our conventional language. For, in their minds, all this business of working out and being good and resulting is taken as an indication of the notion that "Truth is successful cogitation."

Knowledge Void if Detached

The pragmatic theory of knowledge, which must be appreciated physically before the prag-

matic theory of truth can be appraised metaphysically, takes hold of its problem seriously when it connects thought with life and the exercise of reason with the exigencies of existence. Most of us associate knowledge with leisure, as in the inactive or preactive period of man's life in school, or in the otherwise idle hours of a busy life. Of course, the child is expected to make use of the knowledge acquired in the preactive years, and the present system of education is emphatic in its insistence upon the connection between learning now and doing then. Of course, there will be some sort of relationship between the knowledge we get outside of the labor-day, whether in night-school, library or home, and the kind of activity pursued per necessity, if only by way of contrast or as a means of relaxation. But the learning, cultural process still maintains an independence of the more laborious program, since we read and think and reason with a certain detachment from active affairs. It is something "cultural," we believe, and as far as it goes it serves to suggest that the knowing process is independent of the doing one.

But the pragmatist will meet our slender argument in favor of detached, disinterested intellection with the stouter contention that the origin of the knowing process in its rigor and vigor was far different from its lighter employment in a period of advanced civilization like

ours. We enjoy the knowledge which pioneers and parents have made possible for us, but the original acquisition of ideas was not a simple matter of harvesting; for, the fields had first to be tilled. Now, this cultivation of the knowledge field which to-day is so extensive, and this culture of the mind which seems so available, were not always in their present condition, as we know full well. Nature arranged that man develop both sense organs and ideas. Just as life grew up in connection with organic matter, so mind evolved in a physical environment in no wise resembling a world of ideas. In his struggle for existence, man has made use of both physical and mental—of his body and mind—in the act of adaptation to environment, so that he has come to think along the lines of useful action in the world of things. The evolution of his body has been accompanied by the evolution of his brain, and his way of doing things has set the model for his ways of thinking about them.

The mind may appear to be successful in its attempt to think thoughts which have no direct bearing upon the given situation; but such free cogitations, as they seem to be, carry a reminiscence of the real condition of things which were or hint at an equally real situation which will arise. Science, which certainly has an industrial tendency, is bounded by the walls of human action. "What is the essential object of science?"

inquires Bergson. "It is to enlarge our influence over things. Science may be speculative in its form, disinterested in its immediate ends; in other words we may give it as long a credit as it wants. But however long the day of reckoning may be put off, some time or other the payment must be made. It is always then—in short, practical utility—that science has in view." Bergson speaks here as a Pragmatist, but it will be recalled that he has in reserve an additional system of intuitive knowledge to be used when the mechanistic system of intellectualism yields to a freer conception of the living universe as a whole; hence he can afford to admit that knowledge in the ordinary sense of the term is utilitarian in character. Indeed, he may find it advantageous to his philosophy to stress the limitations which appear to beset the intellect when, having served the body, it seeks to exercise and enjoy some vision of its own.

Light Without Heat

The major consideration in the controversy between Intellectualist and Pragmatist concerns itself with Evolution in its relation to knowledge; more definitely, knowledge in the form of an intelligence common to men and beasts. As long as philosophy is content to identify intellect with intelligence, just so long will it be satisfied with the evolutionary conception of

knowledge. It will be able to account for a kind of practical knowing, which Schopenhauer called "knowledge of the Will-to-live," but will be at a loss to explain the character, still more to justify the authenticity, of that kind of knowledge which is manifest and operative in the sciences, particularly those of the inorganic world. That which Evolutionary Pragmatism does explain is something psychological, the function of mind as an instrument of action. But in so doing, it does not appreciate the possibilities revealed by the reversal of the two processes, mind and action, action and mind; altho this is observed by Bergson.

When we assume that mind serves action as its best instrument, we make action the end, mind the means. But when we reverse the relation, and thus assume that action serves mind, we set up mind as the goal and make action the way toward it. Then, intelligence emerges to the degree of becoming intellect; or knowledge is emancipated from the service of the Will-to-live, for which Schopenhauer made due place. Then we obtain intellect in its freedom and need not worry over whether it came from the representations of experience or from the results of action; in fact, we may justly assume that both methods operated toward a common end. But have we a right to make the assumption that intellect emerged from a practical state of af-

fairs wherein it began by serving action, then made action its servant, and finally entered into its own kingdom of ideas? Perhaps we cannot show how the intellect advanced from immediate reaction to its stimulus for the purpose of promoting utility, as in getting food, to a more remote response involving reflection and choice among means at hand, thence to free intellection with its power to consider the situation generally. But something of the kind seems to have taken place. There is at least enough of such pragmatic evidence to afford moral certainty that our faith in the intellect is well founded.

Now, evidence of the fact that action, which has used mind, has paid its debt, is found in various human concerns, wherein practical action takes on at last the character of a scientific laboratory in which careful work is carried on for the sake of obtaining knowledge. The history of the race has been just such a laboratory, only here knowledge assumes the form of result rather than purpose. In the case of those human activities which have led to civilization generally, it is observable that the forms and ideals of civilization, as these appear now in political science, have come into being to become principles of thought instead of devices of action. Real republics beget ideal ones. The moral life of man, carried on practically for a purpose, ends in the moral principles of ethical science.

Useful activities along the lines of industry finally produce the science of economics. Art yields esthetics, medicine biology, practise theory.

Pandora's Box

The picture thus presented is that of nature producing a creature forced to struggle for existence and then gradually equipping it with the instrument of intelligence to facilitate the struggle to the point of success, only to witness this creature transcending the whole natural order by means of an intellect which is now examining, criticizing and passing judgment upon the whole. Pandora's box has been opened and the earth is now covered with writhing witnesses to the independence of mind. But this mere matter of fact is not the same as the logical account of it whereby philosophy, not content with paradox, is expected to present an explanation. This is no simple matter, since it requires the mind to free itself from its usual activity, which is with the things of the world, and to devote itself both to its own nature and to that of matter in their totality. The way in which the discussion is conducted consists in inquiring whether the mind, which was created by nature to be a part of nature, can comprehend nature. The principles involved are those of whole and part, whence it is assumed that, as

the part cannot equal the whole, it cannot grasp it. Assuming that this is a valid way of reasoning, we may state the matter in three different ways.

We may contend that, since the mind is a part of the whole, it cannot, does not, compass in thought—still less understand—the whole; which would land us in a species of agnosticism. Or with the same major premise in mind, we may insist that the mind does think and know the whole, hence it is not a part of the process of nature. This would lead us to a form of absolutism. But both of these conclusions, for all their mutual contradiction, proceed from the same supposition—that the part cannot comprehend the whole any better than it can equal it. Now, it is possible to start from still another point of view and thus assume that the part can comprehend the whole. The eye can vision a certain portion of the landscape where it cannot at the same moment see the whole, and can then obtain other visions to sum them up in the form of a complete view. In like manner can the will adapt itself actively to one phase of its work, and thence proceed to the others in turn, until the operation is complete. In this fashion, it might be reasoned that the intellect, too, altho just as much a part of things as sense and volition, can apply itself to the parts of the total process until the whole is known.

In all three cases, it will be observed that the possibility of thinking the whole order of nature of which man is considered a part is really not impugned. Both Darwin and Bergson, who have made much of the part-whole predicament, succeeded in gaining insight into the whole natural order even when their conceptions of it, as the origin of the human mind, seemed to render this impossible. Darwin did this in his theory of evolution, which was of a most comprehensive character; Bergson does it with his theory of knowledge as intuition. Apparently, when they refer to "mind," they view it in only its practical function; but when they themselves make use of mind's powers they find it possible to think that which in the first instance they had declared unthinkable. For, both alike produce views of nature as a whole, as nature is understood by them.

In the case of the absolutistic Rationalist, who takes it for granted that the mind which has created philosophy and science enjoys the total vision, there is no original admission that the mind is a part of nature; hence there is no philosophical problem, altho there is the question whether the rationalist is correct in assuming that the mind is not a part of nature. The rationalist of this sort is so impressed with the theoretical possibilities of purely reflective knowledge that he refuses to dally with the

problems of sheer naturalism. In the instance of the realistic mind, which has interests in both nature and reason, the assumption is made that the fractional mind comes at last to think, if not to know, the integral world. Now, much depends upon how seriously philosophy is willing to indulge the idea of part-and-whole, which seems to belong to mathematics rather than metaphysics.

When, then, we pay stricter attention to language, we realize that there is only a suggestion of sense in the expression, "the mind is a part of nature." When nature is examined for its own sake for the purpose of finding out what it is like, it does not encourage any principle of division which makes the mind a "part," or one thing among others. The only kind of division which has the effect of placing mind in any sort of partition is the dichotomous one represented by the ancient "Tree of Porphyry" or the dualistic scheme of Descartes. This method of division has the effect of making mind a part of nature only in the sense that it is "half," which for all its improvement upon the loose idea of partition is still over-mathematical and misleading. At the same time, it does not express the practical conceptions of Pragmatism, since it ignores the idea that the active mind is an instrument to be applied to an end of some

sort. The question, then, is one of the instrumental, not the fractional, mind.

Philosophical Instruments

But are the demands of knowledge, which consist in some sort of relationship between thoughts and things, any better met by using a mechanical analogy in place of a mathematical form? Or is it clear what is meant by the term "instrument" when it is applied to the knowing process? On this point, Bergson is far more definite than Dewey, since Bergson, thinking perhaps of the "intuition" he has in reserve, does not hesitate to call an instrument an instrument in the definite form of a stone hatchet or stone hammer. With the appearance of these in the life of the race, we find the first appearance of man himself. The purpose of such instruments was, of course, practical. The geometrical knowledge which came later with the wider use of instruments was not the immediate motive for the manufacture of the significant implement.

When, therefore, the Pragmatist speaks of knowledge as an instrument, he is using figurative, illustrative language. Things are instruments in the way that ideas or mental processes generally are not. When we use such expressions, we must make mental corrections. When physics was called "natural philosophy," the

appliances used in the laboratories were referred to as "philosophical instruments"; but these were recognized as mechanisms totally distinct from the minds which directed their use by the hand. The "philosophical instruments" of Pragmatism are of a different and more dubious sort. They are referred to as "instruments," but in reality they are "methods" which bear analogy to the methods of Rationalism and Empiricism.

Now, the characteristic thing about both Rationalism and Empiricism was their desire to pass as rapidly as possible from the realm of given facts, whether of a psychological or physical nature, to the realm of truth in its logical form. The same general tendency appears with Pragmatism, altho this theory of knowledge tarries much longer in the neighborhood of the psychological and physical situation, doubtless with the intention of showing that the adjustment of the mind to its various objects is far more complicated and intense than either Rationalist or Empiricist had realized. For they had thought it sufficient to consider the mind as picturing the world from within or copying it from without, when the mind, apparently, gets its insight by working upon the world with its mental instruments. The pragmatic mind "makes" its ideas; it seems also to "make" its truths. A theory of knowledge now becomes a theory of truth; its psychology emerges into logic; its

way of amplifying the traditional character of the thought process suggests that it is now in a position to offer a new criterion of truth.

For the sake of argument, or for the sake of avoiding argument, we may admit that Pragmatism has contributed to the psychology of cognition. It may be found, further, to have added a criterion of true thinking, if not a new law of thought, altho that is a different question. In spite of the influence of psychology, which has done wonders in revealing the sources of human thinking, we must still distinguish between the origin of an idea and its ground. One is found by going back into the chronological order, the other by descending into the logical one. Does our human knowledge carry on with such force that it passes from the psychological realm of fact to the logical order of truth? Does the way we use an idea indicate its real significance?

All this might seem to mean no more than an academic conflict between psychologists and logicians, or it might even be regarded as a matter of taste in philosophical thinking. But the critical mind will at least appreciate the difference between the intellectualistic and anti-intellectualistic appreciation of the truth; the difference between the employment of knowledge as a power which manipulates ideas as it handles objects and the use of knowledge to arrange ideas in conformity with objects or in some in-

wardly coherent manner. It may be admitted that ideas, no longer the subject of academic contemplation or scholastic dispute, fulfil a practical function, play a part, and produce results. Applied science shows that beyond all possibility of doubt.

Utility and Verity

But how fully are we to emphasize the practical possibilities of ideas when we turn from the uses to which they may be put to the truths which they further signify? May we make a long story short, and thus avoid a journey around Robin Hood's barn, by saying the utility is the verity? This, at any rate, is something so like that which the Pragmatist does, that we may deal with him as a philosophical utilitarian of some sort, but doubtless the most critical and refined. Science tends to encourage him in his utilitarianism when it makes use of definitions framed in terms of how metals, gases and the like can be used, or for what scientific purpose they are useful when experiments are being performed.

But the kind of "utility" which science employs is such as to facilitate an experiment which will lead to a form of knowledge in which utility plays no part. The "use" in question is a mental one no more pragmatic than the use of the minor premise in a syllogism. Indeed, logic

itself does not hesitate to employ a certain sort of intellectual "utilitarianism" when it "uses" abstraction to form concepts, "employs" judgments to connect concepts, "applies" the rules of the syllogism to test conclusions, "makes use" of hypotheses to form theories, and so forth. But these are clear and convenient ways of speaking, not cogent ways of reasoning; the reasoning in question has nothing to do with the suggestion of utility in the thought process involved. When we pass over into the field of practise, we observe that ideas work out in material form pretty much as they do in theory, and thus give a practical demonstration of the soundness of the reasoning employed. But in such cases, the idea works because it is true; it is not true because it works. We are gratified when we see how cogent ideas turn out successfully, but in such cases we obtain only a practical corroboration of what had itself been established on grounds independent of any fruitful results.

Once we have the intellect, we can use it as an instrument and may thus feel that verity amounts to no more than utility. In many human concerns, there is a balance between useful and true, but that is due in some measure to the fact that man has tacitly agreed within himself to consider the useful in a definite circumstance the same as that which is true in the case. But

there may be instances where the useful is not true and the true not useful, just as there are cases where the amount of utility, so to speak, is not at all consistent with the amount of truth. We get more out of our little terrestrial truths than is forthcoming from our large celestial ones, whose "cash value," to use an expression of James, is exceedingly small.

It is only a bold philosophy which would pronounce its own system true and the rival one false, for seldom does there arise a sharp disjunction whereby the thinker can mark one side correct, the other incorrect. Certainly an enlightened Rationalism would not speak of Empiricism as being false, nor would Empiricism adopt such a strident attitude toward its rival. Each in its own way would be satisfied to indicate a greater degree of adequacy. But when Rationalism and Empiricism in the full form of Intellectualism oppose Pragmatism, they may deny its claims to validity and accuse it of false logic. In so doing, Intellectualism will have to use its own criteria of truth—which are those of correspondence of idea with fact or coherence of idea with idea—and say nothing about the usefulness of the ideas in question. Pragmatism may attempt to defend itself by insisting, on its own authority, upon the utility of the ideas which it upholds and of the utilitarian theory which advances them.

Thus the controversy might seem to promise no more than a deadlock in which each party proceeds to its point on the basis of different standards of truth. But there would still be a marked difference in the mode of procedure, in that the Pragmatist would be found insisting that what he has found to be a useful idea is likewise a true idea, while the Intellectualist would have to bear only that burden of proof involved in the obvious notion that what is shown to be a true idea is a true idea, no less and no more. This controversy, however, between those who insist that the useful is also the veritable and those who claim only that the veritable is the veritable, will appear clearer and capable of a more critical solution when certain significant problems are taken up.

The Fruitful Tree of Knowledge

In dealing with geometrical questions, which are suited alike to action and thought, we may take the axiom that a straight line is the shortest distance between two points. But when we as sphere-dwellers consider this philosophically, we are compelled to say that what holds true in practise will not be found true in thought, since the straight line is not the shortest distance between two points. Or we may indulge common perception and habitual action and thus allow that the earth is stationary, which is both a use-

ful and false idea of the earth. In like manner, we may treat gravitation as a force, which will be necessary in the act of building where a contrary force will have to be employed to meet it; but from this practical attitude assumed by the will we have no proof of any such conception on the part of the intellect. Again we have the useful fiction. Or we may point out that the caloric theory of heat, which physics has discarded in favor of a dynamic conception, is still useful in producing and using heat as a force, and may add that useful practise need not concern itself about the ideas it is using with such success.

With a more elaborate notion like that of the conservation of energy, it is useful to assume that the same amount of energy is conserved in the transference from one form to another. But the scientific situation is one in which there is only an equivalent amount, due to the fact that the methods of measurement have been adopted in such a way as to keep up the supposed balance. The principle of conservation is useful, but in its practical form is not true. Just as useful but incredible is it to assume immutability of species; just as inconvenient to proceed practically upon the theoretical basis of transformism. As long as the mind was confronted by nothing but the kind of thinking which necessity forced upon the will, just so long was man satisfied with fictitious but practically

fruitful notions. It was only when purely scientific curiosity took possession that the way toward a true view of things was opened to him. Even in the presence of the advances of theoretical science, most of us can work along successfully with the myths of pseudo-science. It makes no difference to us, within the narrow range of our human will as the field of thought, what style of geometry or what kind of physics or what school of biology is the most cogent. These things must be taken up in cool moments when none of the exigencies of action are so involved as to produce bias or tolerate inadequacy.

The usual procedure of the mind is such as to generate useful beliefs and discover real truths; but these two are to be kept apart if we are to avoid error and abhor fiction. This separation, however, is one which the Pragmatist seems unwilling to make; indeed, it is a question whether his method permits of a distinction so sharp. He does distinguish between mere belief as something unverified and true belief in the sense of the idea which is found to work successfully and hence is called "true." But, as there is a difference between invention and discovery, so there is a distinction between made beliefs and truths which are found. The Pragmatist may not wholly assert that "truths" are made, but still he cannot admit that they are merely found by the passive intellect. He will

have to assume that the mind in its activity has some sort of influence over both beliefs and truths, while most of us are inclined to assume that the power of the mind is limited to those sentiments which keep within its private borders. If the Pragmatist insists that the power of the mind permits it to make something more substantial than beliefs, we can only conclude that these products are not verities, but only verisimilitudes. They take the place of truths when truths cannot be found, since they serve in the capacity of working hypotheses. They serve the immediate interests of the will, which must act before the truth can be discovered. We are all Pragmatists because we cannot help ourselves, but philosophy is an endeavor to escape from the pragmatic situation.

The Criteria of Truth

To the lay mind, philosophy often seems to be so enamored of its special methods that it is inclined to ignore the major issue—the truth of things. In reply to this implicit criticism, philosophy would suggest that there is something sophomoric in the bland assertion that the aim of philosophy is truth. Such verism, while it rejoices in a sound spirit, overlooks the complexity of the truth situation and does not consider what kind of truth is sought or how this is to be obtained, since there are many truths, not

one of which can be had for the asking. Nevertheless, the popular mind has a right to call philosophy to account and demand that it depart from pure technique long enough to raise the question concerning that truth without which all speculation will be only a scholastic play of ideas.

The Philosopher's Stone

That which philosophy can supply is a Criterion of Truth. It must leave to physics the problem of particular truths about matter, to psychology the definite facts of mind, and to science generally the truths about both nature and man. Such particular verities and the theories which embrace them do not belong to philosophy as such. All that philosophy can do is to introduce and conclude an extended investigation, of which science occupies and operates within the middle part. If philosophy can perfect a true method of thinking about things and thoughts, it will have accomplished nearly all that we have a right to expect of it—all that it has a right to attempt. Such moderation on the part of philosophy must not be taken to mean, however, that philosophy is shunning difficulty or shirking responsibility; it means only that philosophy is confining itself to the field of thought which furnishes it with its proper subject-matter.

But when philosophy encounters the problem of truth, while it avoids the discussion of particular examples of the true, it is far from being so detached as to neglect the problem of truth as such, which it takes up definitely in the form of "The Criteria of Truth." Now, these are not superadded to the Methods of Knowing, but follow as logical consequences when those methods are carried out to a point of philosophical finality. Hence, there will be as many forms and kinds of criteria of true thinking as there are methods of thought. Accordingly, we shall meet rationalistic and empirical, mystical and pragmatic truth-criteria. But we shall not be so fortunate, perhaps, as to observe four different sides of one and the same solid Truth as such. Indeed, it is doubtful whether philosophy can expect and aspire to discover a tremendous substance which it may securely define as "The Truth." More likely is it that philosophy will discover some touchstone which will serve to reveal the presence of truth as a quality of ideas, whence it may use the adjective "true" in the form of "true ideas," "true beliefs," "true theories," and the like.

How Truths Hang Together

The Rationalistic Criterion of Truth is that of Coherence. When such a semi-physical term is used, it is meant to indicate nothing other than

what was implied at the beginning when philosophy was identified with "thought," and thought with the ideas which belong together instead of those which simply go together. The coherential ideal is thus something which proceeds directly from the thought process instead of toward some remote realm for its standard. The act or condition of "belonging together," which constitutes thought and determines its verity, may be understood as consistency, inward agreement and the like. A definition is called true when the qualities which are attributed to a thing are found to belong there; as when matter is defined as an atomic thing, heat as something dynamic, animality as a locomotive organization of matter. A judgment is called true when the proper predicate is connected with a subject, as ductility with metal, consciousness with mind, and the ability to create organic matter out of mineral elements with vegetable. A conclusion is true when it follows from the true premises which have been found in judgments. A true cause is found when there is coherence among all the circumstances in which, as a phenomenon, it appears; as there is not this coherence in the circumstances when its failure to appear is noteworthy. Hence, definitions and judgments, inferences and theories, while they may suggest other criteria of

truth, are declared true when they cohere, idea with idea. They cannot be true and incoherent.

The Facts in the Case

When the rationalist speaks of "The Truth," he has in mind something which is superior to the extreme of being absolute; it is independent of the particular thoughts which the individual mind may entertain in the form of opinion, just as independent of particular things which that mind perceives. The true view of things will thus be Olympian in character, and if, as Aristotle suggested, "the energy of the gods is one apt for contemplative speculation," the results of that energy will be the exercise of true knowledge. But is man in anything like an Olympian position when, as Evolution suggests, his mind is a part of the general evolution? There is no doubt that he thinks, but it is not so certain that he thinks truly; no question about his having knowledge, but a question whether he has true knowledge. But, one might ask, how can there be "thought" when it is not "true thought"? Still more seriously, how can there be "knowledge" when it is not "true knowledge"? Rationalism answers these questions at once by saying, true thinking means more than having the right idea in mind; true knowing signifies something more than having the object to be known right before one's eyes. True thought and

knowledge are dependent upon that which is universal in scope, necessary in character. The true idea, as that about the hypotenuse of a right triangle, is one which must hold everywhere.

As soon as we lift truth from the private thoughts of the mind and the particular facts of the world and place it in a kind of Olympian order, we are confronted by a difficulty. This "truth," which is coherent enough in itself, may not fit the facts as these are found in experience, so that we should have on our hands a conception of things which was not actual, altho true. In addition to this difficulty inherent upon the elevation of truth above existence, there might be more than one movement upward toward the Olympus, on whose summit would be found the "truths" which had come up by different paths. Or, the truth situation would be like the North Pole, where east and west, north and south are all alike.

It is natural to suppose that there is only one plan of ideas which is to be called the true one. The fact of the matter is that there are competitive conceptions of what is true in the world. When Rationalism is confronted by rival systems of speculation, it is not easy to exercise the wisdom of Solomon. At the same time, a false theory explodes in time; an imperfect one wears out. The false one arose when man's mind ig-

nored the significant facts in the case, as in myths; the imperfect one dwindled away because the number of facts to sustain it was not sufficiently inclusive. As examples of worn-out "truths," we may cite the familiar cases of geocentric astronomy and the caloric theory of heat. These conceptions of their respective fields were finally overcome by the introduction of additional facts, or more intensive views of the old ones. We have the "truth" about the earth and heat in a way in which old thinkers did not possess it. But, it will be observed, the addition of facts produces something more than a larger amount of evidence; it produces a more coherent theory of those facts. We have a better view rather than a bigger one; our gain is qualitative in spite of its quantitative form.

If we are not in a position to determine which of the competitive conceptions is the better and hence truer one, we can escape from the difficulty by an appeal to futurism and thus say: "We cannot tell now which is the true view in the case, but our children will be in a position to decide, for time will tell." This might appear to be a lame excuse for not proving truth by means of coherence, but as a matter of fact it is just what the human mind, in its pathetic lack of omniscience, has had to do. It has waited and availed itself of the temporal test of time-will-tell. That which the mind has reason to expect is

a greater degree of coherence—finer and finer truths, rather than more and more of them.

Now, the human mind in its finitude is rarely embarrassed by the richness of its ideas, but there are instances where it possesses more thought material than it can use in forming truths. A suggestion of this overfulness might be found in the well-known, oft-cited example of the square on the hypotenuse on which Pythagoras based geometrical knowledge. He passed from a truth by observation to a truth by demonstration and gave Euclid a geometrical proposition. But now we have perhaps a score of proofs of the same proposition, or just so many coherent patterns of one and the same geometrical idea. In this case, however, the different proofs of the same proposition are not competitive but corroborative; they do not rival but reenforce one another. For all their variety, they do not confuse the mind or threaten its standard of truth by coherence. Indeed, one might suggest that the same number in simple arithmetic can be obtained by a slow process of addition or by the more rapid one of multiplication, without fearing that the additive and multiplicative are at all dangerous rivals for the crown of verity.

The Roads to Rome

But where we are dealing not merely with different views of the same proposition in the same kind of geometry or arithmetic, but with different and contrary conceptions of mathematical science, the coherential theory of verity is not so easily maintained. The lay mind, which had difficulty enough with the standard propositions of Euclidean geometry, encounters something that it finds insurmountable when rival conceptions of the spatial science are put forth. This has been within almost recent memory by such supergeometers as Lobachevsky and Riemann. We can see where they started, but have no idea where they will end with their startling reasonings. Both considered Euclid's solid axiom that parallel lines are to be thought of pretty much as they appear, so that through a point outside a line only one parallel line can be drawn. Instead of suggesting that an additional parallel might be drawn, these radical geometers went to the extreme of assuming, in the one case, that an infinite number of such parallels might be drawn; in the other case, that there could be drawn no parallel line at all. This is indeed embarrassing for the lay mind, which cannot understand how the number of parallel lines in the case can ascend from one in number to infinity or descend in like manner to zero. What

can one think about his spatial world? What can one think at the present time, when the engaging theory of relativity is based upon one of these exorbitant conceptions of space and matter—that of Riemann?

One can simply balk at these extravagant notions and then settle back upon his world of experience, the existent world, and prepare to receive that kind of geometry which adapts itself to the perceptible order. That is, one can be empirical and set about framing an empirical criterion of truth. Or he can assume that, as these special and superior systems of geometry are in themselves self-consistent, where they are far from being self-evident, they represent no more nor less than the ideal of coherency on a large scale. Consistent with themselves in particular, they may be thought of as generally consistent with one another in an abstract order which interests our thought in a way that it cannot engage our action. We live and act in a Euclidean world, and the very term "geometry," or "earth-measure," is significant of that; we may consider the larger order of celestial reality in its extent and intricacy as something to be thought of more coherently in terms of a supergeometrical science. We have grown accustomed to a Copernican view of the solar system in spite of the fact that our senses contradict it; we can grow used to the super-Eu-

clidean conception of the space in which our homely ideas of straight lines and parallels have no ultimate meaning.

But in yielding so much to the abstract ideal of Coherence, we realize that the better it is in theory the worse in practise. It is authentic to the point of being absolute in authority in mathematics and logic, but in these cases the coherence begins only after an assumption has been made. The result is that perfect coherence among ideas signifies that these are based upon an assumption of some sort, whence the truth in the case is of a hypothetical character. If only one parallel line can be drawn, if all men are mortal, then follow in due order a mundane order and a race of mortal men. Make a different assumption, and your lines of coherence, while still just as straight, lead in a different direction. The certainty, therefore, which we gather is the certainty of inference from some given point taken as the basis of calculation. When we want the certainty of actuality, we must turn from Rationalism to Empiricism.

Truth by Correspondence

The Empirical Criterion of Truth is that of Correspondence, the correspondence between the idea in the mind and the object outside it. This does not immediately and automatically make clear just what is meant by "correspon-

dence," whether by a process of copying or less definitely by referring to; still less does it indicate the manner in which the correspondence is carried on. The term, "correspondence," which is thus in itself non-committal, is further misleading in that it appears to indicate a kind of balance between the two principles in the knowing relation when, as a matter of fact, the empirical mode of procedure is such as to place the emphasis on the outside, with things; the mind gets its knowledge and adopts its standard of truth by copying or imitating, relating or referring to these things of the world. But, in spite of these preliminary scruples, Empiricism has no more difficulty in setting up a standard of truth than it had in establishing a process of knowledge. In both instances, it appears to have common sense on its side.

Common sense has no doubt that there is a vast difference between a set of ideas which cohere quite smoothly in a dream and another set of ideas which, for all the roughness they may have, adapt themselves to the world, adjust themselves to the past, apparently follow the analogy of other people's experience, and can be acted upon. This frank state of affairs within one's mind, being open on all sides, rich, public and practical, has all the marks of a real experience and appeals to the mind as something true. Its various correspondences authenticate

its verity. We verily feel that there is a difference between imagining and perceiving; that after harboring an idea for a time, we are coming closer to truth by allowing it to be dispelled by another idea having a perceptual form and practical character. We can do something with an idea of that sort, and can depend upon it. Now, this is the spirit of correspondence. It would seem to be so obvious as to render discussion and defense unnecessary, which is the case indeed when we are considering the psychological situation in perception, but not so convincingly the situation when we inquire concerning the truth of things, or the truth of our ideas of them. Doubts are bound to rise when we follow the analogy of common sense perception, hence we are not wholly certain that the truth of things can be "shown" in any simple way.

The extent of the actual world is such that we are forced to wonder how our contact with it and the correspondence of our ideas to it can give us the true situation in nature. For the world, as we have come to know it in science, is something so macroscopic in one way and microscopic in another that no process of sensing or experiencing is possible. It includes stars which are beyond the ken of eye and telescope, just as it is constituted by elements which elude sharp vision and the microscope. These are not perceived, experienced things, and yet they

seem to be the real things in our world. We may obviate the difficulty for the time, or in a way, by shifting our mode of expression from the actual to the possible. We can say, then, that the realities of the "infinite" and "infinitesimal" are perceptible, experienceable. If our organs and instruments were as good as our brains, we should experience the things which now we enjoy chiefly by some mental process, like calculation. The world with which our ideas are supposed to correspond, does more than expand and contract in these disconcerting ways. It is as free with time as it has just been seen to be with space. This fact tends to cloud the title of empiricism when it lays claim to a truth-criterion.

For, Empiricism exists and operates in the present; its norm of correspondence is something which applies here and now. The larger and more fully rationalized experience of science, however, includes the existence of stars whose light is still to greet our eyes—also of starlight from celestial bodies no longer existent —so that the idea of a correspondence between our ideas and those things must be amended. This act may result in rendering the norm of correspondence a kind of mental coherence between one set of ideas, framed in connection with the scientific status of the star, and another which has to do with our present apprehension of it. Further, in dealing with organisms as

things evolved from simpler forms, empirical correspondence must deal with the settled type of plant or animal which now is, when the complete—and true—status of these things is something historical. The past of an organism may be rolled up behind and somehow included in it, but our ideas about it do not fully correspond with the historical situation therein involved. If we could spread out the celestial order, just as its stars appear to be spread out in the firmament, and thus do away with time; if we could unroll the organic world and have it before us like a film, we should be able to witness a correspondence of thoughts and things which, as it is now, is only partial and suggestive, not full and convincing.

The Way Things Are

In addition to these considerations drawn simply from time and space, there are other doubts which will arise to taint the truthfulness of the correspondential criterion. To have and use this at all, we must revise it in such ways as to determine just what thought shall correspond with just what thing. For the course of nature is such as to put forward, if not flaunt, phenomena which have no direct bearing upon the actual situation in the outer world. The conduct of the mind is equally prone to make prominent impressions that have little or no bearing

upon the attitude which the mind should assume. Nature impresses the mind with the apparent importance of what is seen and heard and touched—the color, tone and texture of things —which gives the "psychology" of things, but not their physical nature. These constitute a realm of so-called "secondary qualities" which have always gratified man, but which, nevertheless, had to be banished by modern science when it sought the essential reality of things in mass, movement and structure as the "primary qualities" of things. Empiricism is not slow to make this scientific revision, but in so doing it appears to abandon its criterion of correspondence, for correspondence of thoughts and things is concerned chiefly with the natural mind of psychology and the "secondary" qualities of things. When another kind or degree of "correspondence" is adopted, it is so marked by logical assumptions that the criterion employed suggests the criterion of coherence.

After things have been scanned to such a degree that we have become prepared to institute a kind of correspondence between them and the ideas which endeavor to grasp them, we are annoyed a second time by the fact that there are relations between them. To have things merely as points would be to miss the plan of the world. To indicate them as notes would fail to produce the harmony. For the universe is a network

of relations, so that individual correspondences here and there can give us only the knots which, for all their significance, cannot obviate the necessity of dealing with the connecting strands. An empiricism of that sort, while it might yield the clear representation of "things" in particular, can end only in scientific skepticism, as it did with Hume. Empiricism realizes that, hence it makes use of the "Canons of Induction" for the purpose of finding causal connections which do not lie upon the surface of experience but must be isolated by means of thought, as tho the procedure were a sort of rationalism over again. When this inductive process of filtering has been carried out, "correspondence" may begin, but not before.

When these particular, local relations between things, as that of friction and heat, have been adjusted by inductive criticism, the question concerning the larger relation between whole sets of connections here and others there will arise to aggravate the empirical method of getting truths by a system of correspondence. In the attempt to do this, experience, as well as knowledge generally, is called upon to effect a regressus from present to past, from effect to cause. It is true that the steps actually taken may be retraced and that, in a way, the path thought has followed may be continued as along a dotted line; but not with security. Going for-

ward, as in a process of reasoning from premises, is a different matter, if not a certain one. When, however, one attempts to reverse the *a posteriori* order, if we may so say, he must yield the idea of certainty. It isn't like reasoning back from four to twice two, since there is no such reversibility with our ideas of natural processes any more than there is with the processes themselves. One may conclude that, if it rains the ground will surely be wet, but he cannot so surely affirm that, if the ground is wet, it has rained, since the wetness may have come about in some other way, as from dew, melted snow, some artificial means or the like. If we could have set out upon a course of reasoning about a thing like Evolution with some certain principle of nature, like "natural selection," "orthogenesis," "the will-to-live," or "the vital thrust" in mind, we might have reasoned downwards through the course of Evolution. But since we meet Evolution under way, to say nothing of the fact that we are one of its effects, we are in no position to reverse matters and thus decide upon its true theory. We must be satisfied to surmise concerning a theory of it, and assume an agnostic position toward it. The world has evolved, but that does not prove that this that or the other thing was the cause of it. No correspondence seems relevant to the actual situation.

Shadows of Doubt

Just as philosophy is at the point of setting up a system of Skepticism, it occurs to the philosophical mind that, in thinking about things, we should not expect the same certainty as in the case of thinking about thoughts. There is such certainty in the application of the rationalistic criterion of truth, but, confined as it is to logical and mathematical forms, it cannot yield the satisfaction which is bound to come when the mind is dealing with the things of the world. When this kind of thinking, which is realistic, is in operation, the mind can expect only a high degree of probability. This, however, is far removed from philosophical skepticism, since it assumes a favorable attitude toward knowledge and keeps progressing toward more perfect probability. In like manner, such probabilism is not calculated to encourage Pragmatism, since it follows the line of correspondence between thoughts and things instead of considering the practical consequences which come about when thought applies itself to action on things.

Skepticism itself is not the simplest, easiest position to take with the problem of knowledge, but the most complicated and difficult. The skeptic must first exhaust all the possibilities of knowledge afforded by Rationalism and Empiri-

cism and then attempt to negate what they have affirmed. Far from being the expression of ignorance, Skepticism more closely resembles omniscience, since it affirms that no knowledge of things, causes and the like is possible. Skepticism is thus negative omniscience. It overlooks the fact that a rationalistic theory of knowledge can be only formal and that an empirical method can lead to no more than probability. When these natural qualifications are taken into account, there can be no doubt that human thought has built up a body of knowledge which, measured here by coherence and there by correspondence, may be called true knowledge.

A Mystical Sense of Truth

The Mystical Criterion of Truth is not easily stated, still less easily subjected to criticism. Nevertheless, common sense and philosophical thought can entertain a certain amount of appreciation of it. All of us know that, when we have ascertained what we believe is the truth in any intellectual transaction, as perceiving an object or obtaining a result in mathematics, we have a feeling of satisfaction which seems something apart from the intellectual operation involved. Even the act of recalling a name will give the mind a definite glow. Now, that which the average person enjoys as something over and above mere perceiving and reasoning is the

mental factor which the mystical mind will employ on a large scale. But the difficulty with this method of measuring truth is that one must have the truth before one enjoys the truth-feeling. The feeling is the effect, not the cause. It is a passive state of mind calculated to corroborate the idea which we accept as true, but cannot of itself propose a criterion of truth on which we may rely. We may have a "feeling that something is wrong"; or something may "appeal to us as being correct"; but behind these feelings of correctness and incorrectness is the mental process peculiar to rationalism and empiricism.

In like manner, it might be urged that when we find coherence between ideas or correspondence between idea and fact, we register this in the form of an ineffable feeling whose intuitive character assures us that we are in the atmosphere of truth. "This is a tree," or "twice two are four"; after perceiving and reasoning, we believe in our propositions because we feel certain about them. It might seem, then, that the act of attaining truth, whether by experience or by reason, had to be verified by some elementary feeling about the truth in question. But here, again, the truth-feeling comes in only after the stage is set for it; of itself it can do nothing by way of testing truths. If Mysticism had been called upon to decide upon the truth about modern astronomy and evolution, it would have

inclined to the more comfortable view that the earth is the center of the universe and that man is a distinct species. Even after reason and experience have shown us different truths about our earth and ourselves, we have disquieting feelings which must be overcome by the rigorous logic of thoughts and things. Mysticism tends to make us sympathetic toward true knowledge, but cannot tell us where to find the truth or what the truth should be like when found.

Man as the Measure

Something similar may be said of the Pragmatic Criterion of Truth. Once the truth in a situation, as in astronomy or biology, has been determined, and we have decided to think in that way, Pragmatism, with its boundless optimism, may point out the practical consequences which follow from such a belief. But can Pragmatism lead on in advance of the logical conclusion which reason will draw and anticipate this on the ground that the truth, when otherwise determined, will be in accordance with the fruitful consequences already indicated? In minor matters, the pragmatic method does something like this. Minerals and metals are found to have certain useful qualities in making tools before the structure or nature of those things are known in any scientific way. Certain foods are found beneficial ages before the discovery of vita-

mins, just as water quenched thirst before it was known to be composed of hydrogen and oxygen. Doubtless there are still many properties of matter and habits of man which reveal practical consequences without our knowing the truth about them. The practical consequence may encourage us to investigate but cannot satisfy the conditions of what we would call truth.

In the two major truths of modern science, to which reference has already been made, we find that theoretical conclusions and practical consequences are quite awry. In the case of Copernican astronomy, the theoretical conclusion from applied mathematics is far from being in accord with the practical consequence—the diminution of man's importance in the total scheme of things, which is far from being humanistic. In the parallel instance of Darwinian biology, the rational trend of things is not in agreement with a desirable belief, since evolution makes for the degradation of mankind. We believe in modern astronomy and modern biology, not because such beliefs are practically favorable and useful, but because we have to. Those who oppose science do so on pragmatic grounds. They find that unfavorable consequences follow from the ultimate pursuit of rationalistic notions. Those who abide by the results of intellectualism and still yearn for the dignity of man attempt to find the lat-

ter in the mind which has the power to draw circles around the natural order of space and time, matter and motion which would envelop it.

What, Then, Is Truth?

The foregoing discussions of the Criteria of Truth have been sufficient to show that truth is more a quality of ideas or a method of thought than an objective reality, like mind or matter, man or God. The mind may obtain truths about matter just as man may learn the truth about God, but the truth in question is chiefly the spirit and method in which thinking is carried on. As for the criteria themselves, it is not possible to assert that just one of the four criteria is the true one, the others false; nor is it much easier to affirm that one of them is the best test of truth. Much depends upon the subject-matter of the ideas in question, whence a clear idea may not be wholly relevant, or, in the contrary case, an effective notion be clear-cut in the way it states its argument and draws its conclusions. There are different ways of arriving at different ends.

When philosophy has in mind the formal truths of mathematics and logic, the mode of expressing the true relationship is that of the equation or judgment, respectively. This is bound to involve the criterion of coherence. If the richer and more realistic truths of the natu-

ral sciences are involved, the question of truth becomes one of observed fact and satisfactory theory. This causes philosophy to turn to the criterion of correspondence between thoughts and things so that the true idea in the case is one of actuality rather than clearness. If, however, the subject-matter is one of neither thoughts nor things, but sentiments such as those of art and religion, it is difficult for philosophy to avoid the conclusion that intuition is the only way of obtaining and testing the truth. This brings the mystical criterion to the foreground.

When, finally, our thought passes on from what is clear and actual, beautiful and good, to what is practical and useful, the pragmatic method is in a position to contribute its philosophy. Thus in politics, education, medicine and social science, one would hardly insist upon the criteria of either coherence or correspondence, still less intuition; one would consult the fruitful consequences forthcoming from certain modes of practise. The abstract and fixed forms of thought peculiar to Rationalism and Empiricism may figure to a certain degree, as we see when attempts are made at pure deductions or the application of statistics. But the truth about our human concerns is found in the consequences which result from application of what seem to be appropriate methods. Since the spirit of the

present age is utilitarian, it is natural, but not necessarily wise, to extol the pragmatic method of testing ideas, and to select as the true ones such as work—even when the ideas now applied were found and tested by intellectualistic methods. Since the true is more a quality of ideas and beliefs than a thing or objective reality, it will be necessary to pass on to the discussion of reality in order to find out what true being means.

III

THE NATURE OF REALITY

Idealism

The culmination of philosophy as a speculative discipline is found in Metaphysics, or theory of reality. As philosophy is understood at the present time, this metaphysical view of things follows directly upon the various methods of knowing with a view to finding the fundamental principles of knowledge. This distinction between knowing and knowledge, which contains the difference between Methodology and Metaphysics, further involves a contrast between the knower and the known. This can be expressed more graphically but less accurately by saying that the distinction in question has to do with the subject and the object of knowledge. As will appear in the forthcoming discussion, there can be a subjective view of reality in the form of Idealism and an objective view of knowledge in the form of Realism, but we gain in clearness if we distinguish the philosophy of thought from the philosophy of things by calling the first subjective, the last objective. When the metaphysical study of things is taken up more constructively, and with less strife between

rival schools of thought, it consists of an analysis of given existence in close connection with physics and psychology. These can give better views of man and nature than are forthcoming from the methods of knowing when these are carried out to their ultimate grounds.

Idealism and Realism

But when the backgrounds of the methods are examined, it will be found that the exponents of Rationalism and Empiricism, to say nothing of the other two theories of knowledge, are of a metaphysical character. The rationalist lays such emphasis upon mind and its forms that he is practically bound to regard things as well as thoughts in a mental way. This will yield Idealism. Similarly, when the Empiricist is found placing the stress upon an outer rather than an inner situation, it is almost evident that he is proceeding from a non-mental, or even material, point of view. The Rationalist relies upon psychology for his conception of the knowing process, the Empiricist upon physics; at any rate, these two contrasted sciences seem to serve as the respective patterns for the rival theories. The results will now begin to appear in the full theories of Idealism and Realism, which embrace both inner and outer situation, the knower and known.

As far as Mysticism and Pragmatism are con-

cerned, it will be found that these methods of knowing do not so easily expand into systematic views of the world generally, so that it is only by accommodation or even courtesy that we may speak of a "Mystical Metaphysics" or a "Pragmatic Metaphysics." However, the mystical method, while it is far removed from the letter of Rationalism, possesses its spirit, whence Mysticism lends itself to Idealism. In like manner, Pragmatism, which follows a method of its own instead of the empirical one with which it sympathizes, is practically bound to Realism. The result is that philosophy is now confronted with practically two views of reality. Any other which may appear will be found to combine these competitive conceptions. The philosophical meaning of Idealism and Realism must now be considered.

Thoughts and Things

We use the terms, "Idealism" and "Realism," in conventional ways to indicate lofty or low views of an ethical form, as when we refer to an idealistic view of life or a realistic style in literature. We come nearer to the philosophical values of these terms when we use them, as it were, in a spatial manner, to indicate that Realism takes an immediate view of its object or problem, leaving it to Idealism to do what it can with a remote treatment of it. We live in a

realistic way since we exist and work by direct contact with things, but we can think about them in a distant and derivative manner. Hence, it may be said for the time being that the difference between Idealism and Realism is largely a matter of distance, and what distance itself involves. But when these terms are used in the strict sense of philosophy, the spatial modes of representation, whether of high and low, or of far and near, give way before direct, decisive methods of thinking. Then, Idealism and Realism begin to contrast their definitions of ultimate reality. The result is that, according to Idealism, reality is in some sense mental; it must be spoken of in terms of ideas, and the last account of it is one which is given by thought. According to Realism, reality is not mental, cannot be spoken of in terms of ideas, when these are understood in a psychological way, and must be thought of as independent of mind.

From what has been said of these two forms of analytical metaphysics, it might appear as tho they were upon the same level and exerted the same influence, one being the contrary of the other. The same might be said of the two political parties in the United States, where it is either one or the other which is in control. But just as it is the Republican party which is almost habitually in power, so it is Idealism which has usually dominated in philosophy.

Hence Realism, like the Democratic party, is kept in a polemical position whence it registers dissent from Idealism and thus tends to assert that reality is non-mental, altho the meaning of "non-mental" is not always made clear. There can be no doubt that Realism to-day, in the academic form of "Neo-Realism," has been of great value in pointing out the haste with which Idealism has proceeded to ultimate reality; but it is a question whether Realism of itself has been able to give an adequate, consistent account of the things which it defends against ideas. Philosophy has always been Idealism of a more or less perfect character, in a more or less consistent form. If it ceased to exist, it is difficult to see how Realism would proceed, since it lives chiefly by polemics. Idealism must now be examined in some detail.

IDEALISM

The moment Idealism as a doctrine is identified with classic names, its principles are more easily recognized. Idealism is that which Plato taught, what was put in a psychological and paradoxical form by Bishop Berkeley, and what was systematized in a most formidable manner by Immanuel Kant. In its ancient form of Platonism, Idealism stood for the intelligibility of things generally. It was formulated by means of an effort which rationalized all existence without

considering the nature of that which did the rationalizing, or that which was rationalized. Unlike our modern Idealists, Plato analyzed neither the subject nor the object of knowledge, so that he was as innocent of physics as of psychology. In contrast with him, Berkeley and Kant indulged in that analysis, especially on the psychological side, so that they were bound to interpret Idealism in terms of consciousness, or what is thought about things. In addition to their marked tendency to psychologize knowledge, they exhibit another leaning which is not noticed with Plato—the tendency to extract man from the world and then exalt him to a position where his thought becomes magisterial. The man of modern Idealism is thus a Duce, the dictator of all existence.

"Plato Is Philosophy"

Plato was led to assume his idealistic position more from the skepticism of others before him than from any doubts he may have entertained about man's knowledge of reality. He had learned from others that there could be no knowledge when the world was regarded as a flux of particular things. Knowledge could come only as the world was looked upon as a system of permanent universals, which he called Ideas. We think of "ideas" as subjective things which we gather from the world or conjure up within con-

sciousness, but Plato's Ideas were the fundamentals of existence itself. In default of any such logic as we have had since the days of Aristotle, who followed him, and in the absence of any principles of physical science like those of modern times, Plato was in a position to project a philosophical doctrine which took the place of the logical and physical and which has since been a model for all those who have attempted to analyze the mental and material orders.

When Plato refers to the Idea, he seems to have in mind no more nor less than the intelligible principle by means of which a thing becomes a topic for thought. All of us Platonize when we ask, "What's the idea?" whether we are considering the League of Nations, Relativity, Prohibition, or modern music. In a certain sense, the Platonistic Idea is only common sense on a broad scale and deep basis. Plato himself looked upon his Idea as the general principle which produces the type, just as Phidias looked upon various human forms as expressive of the typical regarded from the standpoint of beauty. He considered it, further, as the fundamental principle of thought, or category of Aristotle and Kant. It served him in the capacity of natural law, and as far as he perceived law in nature he reduced it to the Idea. These Ideas, which are the everlasting patterns of visible things, may

be arranged in a hierarchy ranging through the more general and the more lofty, until we reach the summit of the system, where we find the Idea of the Good. Now, the Good of Plato, unlike the Good of modern ethics, stood for the highest degree of intelligibility. But, since Plato, like Socrates, looked upon the Good Man as the Wise Man, he had no trouble in using the Good where we might be inclined to substitute the Idea of the True.

Like every other philosophy, Plato's Idealism was bound to encounter the actual world, wherein are found the brutal facts of concrete existence as well as the purely human impressions of them which we are fated to entertain. Plato despaired of the situation in which common perception tries to make something out of every-day experience, for that situation was one in which the flux of many things so confused the mind as to make knowledge impossible. Plato must get rid of the ordinary man in his every-day world. He does this by regarding the world of common experience as an illusion. Man in this actual world of things is like a captive in a cave where he is chained with his back to the light and where he can see only the shadows of real things as these are dimly reflected upon the rear wall of his dungeon. He infers the existence of real things in the world of light, but it is not until philosophy enables him to cast off his shackles

that he is able to perceive the true world, which is the World of Ideas. There he may contemplate the Good and frame the Ideal Republic.

Ideas Are Permanent

But when one who has interests vested in the world of particular, moving things is asked to exchange this for an ideal order, one is likely to inquire concerning the reasons for believing in a World of Ideas. The passage from one to the other is not like the mere act of turning over a rug from the seamy side with all its ugly but useful knots to the serene pattern of the textile. It seems more like the fable of the dog and his shadow, since one appears to be giving up his hold on tangible reality for a possible grasp at a finer but more elusive thing. One can have dealings with this man, John, where he cannot so easily enter into relations with the Idea of Man. He can do something with this particular elm, but cannot work so effectively upon the Idea of Tree. He holds citizenship and receives benefits from an actual government, however poor, but cannot so easily become naturalized in the Ideal Republic. It is natural to hesitate when the World of Ideas is advertised by philosophy, even when it has so much to recommend it.

Plato's supreme contention in favor of the reality of Ideas is that of Permanence. The indi-

vidual man, who a moment ago appeared so real in his individuality, will pass away; but the type, Man, abides. The particular elm is doomed to decay, but the Idea of Tree, of which the elm was an example, exists forever. The actual State, however solid in its palmy days, becomes a dead empire like Assyria and Babylon, Greece and Rome; but the State Idea persists and furnishes a pattern for future governments. When placed upon the basis of Permanence, Ideas become real beings, while the things and institutions of the experienced world are only pale copies and faint imitations of the true realities which, at first, seemed mere copies of the things seen and touched. These visible, tangible things are the copies of the eternal types which philosophy has discovered. When the classic form of Idealism has been revealed to us, we realize that most of our reflective thinking, most of our rational activity, is of the Platonistic sort. Science substitutes a cosmos of laws for the actual world in its heterogeneity. Religion seeks to impose a spiritual order upon the sensuous one. Art uses esthetic expression to create that which nature only suggests. Moral idealism strives to remake the social order according to an ethical plan of justice or happiness. Only these enterprises attempt in modest ways what Plato did in a magisterial manner. But, whether in the grand manner of philosophy or the simpler mode of

reasonable thinking, the Idealism of Plato reveals itself as a permanent possession and settled habit of the human mind.

When Idealism became a modern doctrine, it maintained the spirit but departed seriously from the letter of Platonism. What it kept was the mental interpretation of reality, which it overemphasized by putting mind upon a psychological basis. What it sought to reject was the universalism of Plato, especially at the place where Plato had made reals of his universals. Berkeley used psychology in place of Plato's logic and denied the validity of universal notions. Kant adhered to logic and the universals which it implies, but denied that these universals are realities. Then, both Berkeley and Kant, while differing widely between themselves, agreed upon a kind of polemical procedure by means of which they defied the reality of the external world and all those who stood in the position of its exponents. The grand spirit of Plato's Idealism was in Berkeley a Paradise Lost; in Kant it was regained in part only in the form of Objective Idealism.

Naïve Idealism

The Idealism of Berkeley is without a superior as an interesting and tantalizing doctrine. It took hold of the modern mind in the eighteenth century and immediately availed itself of

what was then the new psychology, which it exploited to an extreme almost unthinkable. It was not until psychology had been more thoroughly digested that it became possible to provide a refutation of a system which placed the individual in a position where he might, if not must, say "The world is my idea." Even to this day, there are thinkers who take practically this position; indeed, if one sets out with Berkeley's fundamental principle, he can intrench himself in his own consciousness and insist, with the Symbolists, "The world does not exist for me!"

Such Subjective Idealism, which seems the very reverse of common sense, is really the most common philosophy of the average person, altho he does not base it upon any distinct principles of mind or carry it out to any theoretical extreme. Idealism is every child's philosophy, the sentiment of the person who has not carefully considered the claims of nature and society, the view of the sentimentalist, and a common tendency with all of us. So vivid are our own impressions and so personal our point of view that it is with difficulty that we emerge from subjectivism and emancipate the mind so that it is enabled to view the world with scientific breadth, the mind with psychological depth. Berkeley capitalized all this popular idealism, to which he gave the psycho-philosophical form of Locke's Empiricism. It may seem strange to link

the Empiricism of Locke with the Idealism of Berkeley, for this would yield such an anomalous thing as "Empiricial Idealism"; but such is the doctrine of Berkeley. It is the doctrine of Naïve Idealism.

The spiritual nature of Berkeley as a man and churchman made him receptive to Locke's theory that the mind, while it possesses no innate ideas, forms its own ideas from sensation and reflection and then comes to the realization that it knows nothing but ideas. Locke may not have wished to have this simple principle of Empiricism urged to a spiritualistic conclusion, since he was opposed to the notion of any spiritual substance. But he was just as much opposed, theoretically, to the idea of corporeal substance, and it was this anti-materialism which Berkeley took hold of and developed in the positive form of Subjective Idealism.

Those Primary and Secondary Qualities

With both Locke and Berkeley, the chief business of the mind was perception. Locke had applied the principle of perception in such a way as to make color and sound, as well as smell and taste, things that could exist—or effects that could be registered—only as there was a mind present for the seeing and hearing, smelling and tasting. But Locke saved the physical world by endowing it philosophically with the primary

qualities of extension, bulk, form and motion. This was the famous, but none too fortunate, distinction between physically primary and psychologically secondary qualities. It had been made by Galileo, not for the purpose of building up an inner experience of secondary qualities, but with the aim of getting these personal things out of the way in order that the primary, spatial, objective qualities of things might be measured and science put upon a firm footing. Locke tolerated these primary qualities, altho they played no part in his system; but Berkeley was as determined to get rid of the primaries as Galileo had been to remove the secondaries. For Berkeley, all qualities of things are secondary ones; they exist in minds only and have no place in any supposed unperceived and unperceiving "matter."

While the average person lives in a little world something like that which Berkeley designed as his philosophical domain, the average person when called upon to explain the phenomenon of his own life readily assents to the idea of an external world in all its reality, wherein he enjoys the privacy of his own life. But Berkeley was satisfied to abide by pure subjectivity, with perceiver, perception, and the perceived order as the full reality. Descartes had insisted that the act of cogitation was sufficient to establish the existence of the ego, which could then deal with

the world upon a purely physical basis; but Berkeley maintained that the cogitative act of perception was the basis for both the individual and his world. There is no color which is not a seen color, no sound not heard, or odor unsensed, or taste which is not registered by a perceiving subject. The primary, physical qualities which Locke has attempted to save from the devouring appetite of the individual perceiver are likewise absorbed by the tactual sensation for the ego whose world is his own. It exists by his act of perception, and hence to be is to be perceived.

When common sense sees how its self-centered philosophy begins to lead to such spiritualistic extremes, it protests that, after all, one does not eat and drink ideas, or clothe and house himself in them, but deals with realities. The practical mind, altho it is inclined to consider the world as only the sum of its sensations, objects to having the supposedly physical order—earth and sky, sea and mountain—reduced to a chimera or display upon the screen of the cinematograph. Such an idealized world would call upon him to change his language so that he would no longer speak of things, but of the mere ideas of them. But Berkeley found this unnecessary. He did not attempt to change the world as such, but only our interpretation of it, so that our conversation about it is as of old; for "we speak with

the vulgar but think with the learned." And to a certain extent we still think with the vulgar, if we are idealists, since we accept the world just as it is or seems to be; only we as idealists refuse to credit the idea that there is a substratum of matter behind the spectacle of things. The same old world with a new, idealistic interpretation—such was Berkeley's philosophy.

The Same Old World

When, now, we consider the way in which science has thinned out matter until it consists of electrons and thus seems to be the stuff that light is made of, we can credit certain physical aspects of the Berkeleyan Idealism. We live in no substantial order, after all, and if it is not a world of percepts it is little better than a world of waves: hence the more plausible objections to Idealism are of a psychological rather than a physical nature. The trouble is with the subject of knowledge, not so much the object, since we shall always have that in one way or another. On the subjective side of the perceiver, who seems to be in a position at once omniscient and omnipotent, there is the extremely personal nature of the act whereby things are established in their idealistic rôle. Since the act of perception is personal, it will be difficult to account for the idealized world of things seen and heard when the personal perceiver is absent in place

and time; for one cannot be everywhere at all times. Fortunately, there are other perceiving spirits who, as it were, can watch the world for us when we cannot be there, altho it may be difficult for us to understand how we can believe in the existence of other minds, since they are not the subject-matter of our perception.

But above all, there is the Supreme Mind of the All Perceiver whose perception of the world is creative and complete, for like the keeper of Israel He neither slumbers nor sleeps. In His divine vision are all things established as they are also upheld, not by might or power but by His Spirit. Indeed, the grand reason for believing in the existence of God is found in the idea that the existence of the world requires this All Perceiver. His is the original and creative act of perception. Our petty human perceptions are only fragmentary copies of the omniscient act. Or, as Father Malebranche had said ten years before Berkeley's birth, "We see all things in God"; or as the Psalmist had expressed it before there was any philosophy at all, "In thy light, O Lord, shall we see the light." Now, this transposes Berkeley's system into a Theistic Idealism, but the source of it is still open to investigation if not question.

Philosophy can hardly question the right of a thinker to make the world over into a system of Ideas, as Plato did in his day, or to place at the

center of it an Absolute Mind as the world ground. That sort of philosophical procedure must be judged by the assumptions made and methods employed. Plato and Aristotle, Spinoza and Kant are in formidable positions whence they are not easily dislodged. The same, however, cannot be said of Locke and Berkeley, who lack secure starting-points and sound methods. Both of them start with man's immediate consciousness, whence they proceed, especially in the case of Berkeley, by means of purely psychological means to metaphysical conclusions. It is difficult to psychologize man; that is, to give an adequate account of his nature upon the simple basis of consciousness. It is so difficult to psychologize the world that the task might be called impossible. When we avail ourselves of our logic, we may be in a position to grasp the nature of things, which seem to exist and operate by means of something logical. But when we have at our disposal only the sensations and perceptions of the mind in its superficially psychological aspect we cannot land the world any better than we can draw out the Leviathan with a hook.

The Cure for Idealism

Schopenhauer said of such Idealism, which had itself infected him, "It stands in need, not of a refutation, but of a cure." It is far from pleas-

ant to think of Idealism as infection, but, as has been observed, it works in both a psychological and pathological way in the average person, who is self-centered, self-indulgent and narrow. It appears more malignantly in the confirmed drunkard and drug-addict. It shows itself esthetically in the schools of Romanticism, Decadence and Symbolism. It is a state of mind which each one of us indulges at times, or which each preserves as the essence of his private life. When the philosophical meaning of this attitude is summed up, it amounts to the idea that the ego alone exists and that the world is only its idea.

The "cure" to which Schopenhauer referred was one which he himself did not prescribe. What he did was to render the individual an illusion, as tho he would get rid of egoism by getting rid of the ego and thus throw out the child with the bath. What Idealism needs is to be saved from itself. It may be cleansed of its egoism and then use the ego for some better purpose. The method of cleansing consists, as it were, of a sort of psychotherapy or even psychoanalysis, in that the idealizing ego is shown wherein its error lies. This is diagnosed at once as "Solipsism," or the idea that the self is the sole existent in the world. There are those who proceed under some such bland assumption, others who through stimulants and narcotics get

themselves into such a state of mind, and disordered minds who fall victims of ego-mania.

In the case of Berkeley's Idealism, however, this psychological conclusion was one which was forced upon him by the exigencies of his doctrine. For when we say, "To be is to be perceived," the act of perceiving, in distinction from the act of thinking generally, takes its stand within the ego, whence it cannot be dislodged. The result of the whole philosophical procedure is not to establish the world; if it succeeds in establishing the ego, when it seems as tho it did no more than account for a percept for the time being, it makes it only a ruler over a petty principality. Then it may boast, "My mind to me a kingdom is," or lament like "Columbus without America."

Solipsism

The Solipsism to which Berkeley's Idealism leads is assumed nowadays to be a complete refutation of his system; the ego is given enough psychological rope and then hangs itself. But, in Berkeley's day, when neither natural nor social thought had much authority, such Solipsism was not looked upon with disapproval. Descartes had sought so strenuously to establish the self that the century following his death seemed to feel it had a right to exalt the ego above the world, until its position was not only

supreme but solitary. It was not until the middle of the eighteenth century that the term "Solipsism" was defined in an unfavorable manner or regarded as a principle fatal to philosophy. Now it is fully appreciated that a system of thought which is based upon personal perception is unable to grasp the world. The more evident it seems psychologically, the less evident is it logically. It presents a solipsistic picture of a person in a brightly lighted room whose very brightness prevents his seeing the world outside. The essential qualities of things, the primary qualities, can never be as bright as the immediate states of mind, but they exist and can be made the subject-matter of knowledge if the knower will use something more fundamental than his process of private perception.

The inability of Naïve Idealism to grasp reality by obtaining knowledge of it appears, on the other hand, its lack of an active process. For the world which confronts the mind and challenges its philosophy is a scene of change and movement, while the mind which attempts to lay hold of active nature is itself dynamic in the power of its will. Why should philosophy listen to Naïve Idealism, which makes the world a house of cards whose bright surfaces can be contemplated, but whose fragile structure can endure no movement, when the actual world is a tremendous mechanism which both engages the

intellect and challenges the will? The world which philosophy will come to look upon as a real order is one which can endure action on the part of man, just as it is one which provides for the mind reactions more adequate than those included under the head of perception. It is as much an obstacle to man's will as it is an object of his intellect. Now, this activity in nature and man was something which Naïve Idealism failed to take into account.

The importance of the will as an organ of knowledge becomes especially important in a system like that of Idealism, since Idealism tends to create the impression that the world is an illusion. As soon as one has said, "The world is my idea," he is bound to inquire whether his idea of the world is a real one and not a fiction. At such a juncture, he is most likely to resort to action as a test. Can he rely upon his world of ideas? Will his house of cards endure movement? Can he lay hold of the world or must he be content merely to brush it with his perceptions? The situation in Idealism is akin to that depicted by Calderon in *Life a Dream*, wherein the hero, in serious doubt about the reality of the world which he experiences, is advised to test it by action; or as Calderon expresses it, "If life is a dream, we should live well within the dream." This is the moral lesson which the skeptical drama seeks to impart. The

metaphysical conception is that the world cannot be accepted as real unless it has the power to sustain action on the part of the will. In the instance of Naïve Idealism, the kind of world which is presented to us for belief is one which, while it may assume the form of a spectacle in the mind of the individual, is unable to endure action on his part. At the slightest move, this world collapses like the house of cards.

Critical Idealism

The term, "Critical Idealism," is used to indicate the fact that philosophy, in its endeavor to establish the mental character of reality, goes deeper into both the subject and object of knowledge. This was the work of Immanuel Kant in his *Critique of Pure Reason.* It is the amateurish opinion that this book was written, as it were, in hieroglyphic style, whence the comprehension of it is practically impossible except by the very elect, who themselves grasp it in part only. The *Critique,* which consists of nearly a quarter of a million words, was written, or put together, in the space of only five months by a thinker whose logic was so intensive in his own mind that he failed to render expressive the language which he employed. The perusal of this work is made difficult because of the sentence-structure rather than on account of the terminology. Nevertheless, the *Critique* is no sealed

book, but only a profound work on the fundamentals of philosophy. Hence it is wiser to look upon Kant's *magnum opus* as the great modern contribution to philosophy, not as the cryptic work of an eccentric German professor.

What Can a Man Know?

Kant is perfectly plain in both what he plans to do and what he achieves. He expresses his purpose in the form of the great critical question, "What can I know?" Is not this the usual question with a philosopher? Having projected his original query, Kant proceeds to inquire, "How is mathematics possible as science?" "How is physics possible as science?" "Is metaphysics possible as science; and if so, how?" The answers to these direct questions are just as frank: Mathematics is possible because the mind is in possession of the intuitive forms of space and time wherein geometry and arithmetic are found. Physics is possible because the same mind is in possession of the fundamental principles, or categories, like those of quantity and causality, which lie at the basis of mechanics. Metaphysics is not possible as a science, since it presents no field or subject-matter on which the mind can work or to which it can apply its forms. It becomes possible, however, in an ethical way, as the science of what ought to be instead of the science of that which is. If Kant

had stated his philosophy with such amiable simplicity, however, it would not have furnished such a comprehensive analysis of human understanding, nor would it have made his case so convincing. No, nor would it have brought out the paradoxes for which the Critical Philosophy is famous.

Kant's Critical Idealism can be located quite distinctly when it is surveyed from the standpoints of Berkeley and Plato. Like Berkeley, with whom he would not have his Idealism confused, Kant starts out with a psychological conception which yields him two fundamental "Intuitions"—Space and Time. The intuition in question is a "blind but indispensable function of the soul," which works beneath the surface of thought to prepare the raw material of mind for the more analytical understanding. As soon as Kant takes that stand, he places his thought out of range of everything in Berkeley's Naïve Idealism. When Kant is contrasted with Plato, whom he felt free to criticize and caricature, it will be seen that he makes use of a Platonistic framework of knowledge; unlike Plato, however, he does not apply this to reality, but to appearance only; not to noumena but to phenomena. In this manner, Kant establishes an absolutistic system of knowledge upon a relativistic basis, but this is exactly what physical science does in a more concrete and practical

way. What Kant does amounts thus to giving a critique of science, or to placing science on a direct and self-conscious basis. There was no doubt in Kant's mind that knowledge was carrying on in a true way; his only question was, "How does knowledge operate, and how far can it go?"

Critical Idealism, as presented by Kant, spreads both Rationalism and Empiricism out over the framework of logic, with the result of discovering that the two together cover the field of physical knowledge, but no more. It succeeds in making the assurance of science doubly sure by means of philosophy. It would like to continue the knowing process out into the remote realm of the metaphysical, but discovers to its dismay that the attempt to extend knowledge beyond its scientifically proper domain leads, not merely to no path, but to a confusion of pathways which are beset with contradictions, or "antinomies." Philosophy is taught thereby to remain within its proper field, which is that of experience or possible experience, and not seek a place in the metaphysical sun. In that realm, which is too bright for the eyes of understanding, are the ideas of God, the soul, and the world as a complete whole. The human understanding may think these entities but cannot know them. The moral will, or Categorical Imperative, can break the circle which the under-

standing has to draw around itself, but this act will yield belief rather than knowledge.

The way in which Critical Idealism outlines and analyzes the proper field of knowledge involves the whole science of logic treated in a manner so theoretical and technical that Kant felt constrained to call it "Transcendental Logic." Insight into this extraordinary procedure may be had and enjoyed by observing how Kant treats his "Intuitions" and "Categories," which are fundamental forms of sense and understanding respectively. The intuitions are those of space and time. The categories are twelve in number, but, without carrying this duo-decimal system along in toto, one can gain sufficient insight into it by using the categories of Quantity and Causality, by means of which science measures and explains. In dealing with factors which make science possible, Critical Idealism begins and ends by insisting that they are mental. It is not that psychology reveals them as things within the mind, but that logic demands their presence there in order that knowledge may have universal validity, or be true. Now, this act of internalizing everything is the essence of Critical Idealism.

Is Space in Us?

The first step which Idealism takes in rendering the whole world mental is in the direction

of Space, the form in which our experience of the world is given us. Modern science began by showing us that we must revise our common perception of the spatial order when it substituted a round world for what seemed to be a flat one, a rotating earth in place of a stationary one. The old view still obtains with our eyes, but we have learned to set it aside as one of our permanent illusions. The more advanced physics of the present tends to lure us farther from common-sense perception of the spatial world by regarding time as a fourth dimension. These ordinary and extraordinary revisions incident upon modern science tend to make the idealistic treatment of space appear less extravagant than they seemed when Kant announced that what appeared to be a great objective fact was really a subjective method of representing the world.

When Kant changed the status of space from an outer to an inner one, he felt that he was carrying on what he called a "Copernican revolution." It is true that, like the modern astronomer, this modern Idealist was instituting a great change in our way of regarding the world; but the Kantian revolution was the Copernican one reversed. Copernicus changed his point of view from earth to sun, or from a near-by object to a remote one; Kant effected his change by shifting his view from matter to mind, or from a remote object to an intimate one. Once he had

rendered space objective, the way was prepared for an idealistic view of the world. The world did not become his idea in the sense of Subjective Idealism, but it was made over in terms of the elaborate mechanism of the human understanding, of which all nature henceforth was to be modeled.

When we begin to think about space, whose nature seems so obvious and objective, we awaken to the realization that its very simplicity involves a subtlety of which action is not aware. Space lacks force and offers no resistance to our efforts, and yet it manages to preserve the boundaries of objects and keep them at their distance. It acts like both the weakest and strongest of things. It seems to coincide with matter, and yet, unlike matter, it does not break up in a variety of things, but maintains its unique character no matter what is done to or thought about it. When we attempt a rationalistic treatment of it and try to deduce it from something higher in the logical scale, like "extension," or when we attempt the deduction of particular objects from it, like man from mortal, we are balked, are unable to make even a beginning. There is nothing like space which is superior to it; there is nothing in universal space which is not found in some particular portion of it. The geometer who is proving a proposition is unlike the logician who is drawing a conclusion, for the geom-

eter always feels his way along the stages of his demonstration by a process of intuition whereby he can represent his reasoning in a perceptible way.

If, now, we turn from deduction to induction, we realize that this empirical way of proceeding may be all right for a botanist but not for the geometer. In geometry, we do not collect kinds of spaces and then classify them, for a triangle is fundamentally different from a three-leaf clover. What we might hope to find by generalization after assembling all sorts of spaces is found immediately in the portion of space with which we are dealing, as tho it were a tempest in a teacup. After one significant look at the world, the geometer is in a position to reason indefinitely about space, his subject-matter. This could never be the case with an allied phenomenon like color, which lacks the universality of space, requires definite experience with different colors, and cannot be worked over into a possible geometry, or "chromometry."

The indifference toward both rational deduction and empirical induction appealed to Kant, altho his method of rendering space subjective was somewhat different; it was more psychological. When we try to think of space as something in us and not outside in the world, we encounter two difficulties. First, when we go over our mental outfit of sensations, ideas and

the like, we do not so easily identify space as an immediate datum of consciousness. Secondly, when we look at space itself, it has a distinctly objective form. How can Idealism hope to carry out its great revolution? Kant answers this impromptu question by suggesting that a deeper view of consciousness reveals both the mentality of space and the spatiality of mind. On the other hand, if we persist in looking upon space as objective, we shall become perplexed about the question of its size, whether it is finite or infinite; so perplexed as to find ourselves landed in everlasting contradiction, or antinomy. Hence we must conclude that space is subjective and cannot be objective.

According to Idealism, space is in us more than we are in it. When we cast about within ourselves after the manner of a loose, popular psychology, we do not come upon it the way we encounter a sensation like color. But when our psychology becomes tight and philosophical, we seize it as with hooks of steel. Then we see, as Kant points out, that we must have spatiality as a necessary preliminary before we can perceive particular objects in space. It is antecedent to every perception of space. Then, after every object has been removed or thought of as eliminated, we still have space as necessary residuum. As spatiality was present before every object, so it abides after the departure of the object. Then

we begin to see that space, instead of constituting a container for the things of the world, forms as it were the very walls of the mind. We do not find space in the world, but we spatialize it. Or, as Bergson has expressed it, "The more consciousness is intellectualized, the more is matter spatialized."

The Size of Space

In the particular case of Kant, we may not be able to determine what motives led him to spatialize the world; but we may assume that, first of all, he despaired of dealing with space as long as he thought of it in an objective way after the manner of common sense. Space must be at least non-objective. When Kant was led to render space subjective, he must have had in mind the way in which the mind, when dealing with space geometrically, ever proceeds with both logical certainty and the ability to put its propositions in a perceptible form, as in the diagrams of geometry. Such reasoning was at once certain and perceptible. It made geometry a perfect science with its foundations in the mind itself. In order to accept such an extraordinary view as that of Idealism, we must realize that space is needed by mind more than by matter. When we assume a dynamic view of matter—as modern science has always done more or less thoroughly, however much it may have spoken

of matter as "that which occupies space"—we come to realize that spatiality is far from being a physical attribute of things. Matter with its inherent energy and indifference to structure can get along without space. But mind, which at first seems so foreign to space, has a method of procedure which is always analogous to spatializing, as appears directly in the commanding science of geometry. In all our reasonings, however abstract, we aim at graphic representation and thus find space the readiest and most complete way of adjusting thought to thought. Kant made geometrical space a part of mind; Bergson makes mind entirely spatial; we may rest assured that the spatial is closely akin to mind, more so by far than to matter.

When Idealism attempts to make assurance doubly sure by showing that space cannot be objective, its results are not so satisfactory to the philosophical mind. In opposing the objective view, it proceeds, as did Kant, by reasoning according to the "size" of space rather than upon the basis of space's own nature. The question of size has to do with the finitude or infinitude of spatiality. According to Kant, the mind is placed in a fatal dilemma. If the mind makes space a finite thing, it will be too small; if it makes it something infinite, it will be too large; hence the mind is inclined to cut the Gordian knot and make of space no thing at all. In thus reasoning,

Idealism makes use of the logical dilemma without fully inquiring whether such logical routine is adapted to such extraordinary horns as the finite and infinite. If one cares to reason that an organism must be either a vegetable or an animal, or that matter must be organic or inorganic, one can feel secure in his thought, since he is able to draw a complete circle of knowledge about the concepts, organism and matter. But when it is a case of pure quantity and the juncture is between the finite and infinite, the usual mode of procedure does not seem as simple or secure. It may be possible to think of the universe as both "finite" and "infinite" at the same time; or to think of its finitude in ways which shall not disappoint the mind's desire for the infinite and absolute.

The Boundary of Being

Kant in particular seemed to feel that, when we are dealing with actual existence, as in the case of space, we must think of it as in some sense bounded, since we cannot consider reality as something which drifts off into everlasting nothingness. We ourselves feel that way when we think of matter as limited and of space as unlimited. But, according to Relativity, we may have, as it were, both the finite and infinite together when we think of the universe as finite but still as having nothing outside it as its

boundary, in which secondary sense it is infinite. If such a notion as that of an infinite finitude, or an unbounded but self-limited universe, be acceptable, we may dissent with and depart from Kant's particular notion that space cannot be objective because it is non-measurable. We can and must think of space as relative to something else instead of being an entity in its own right, and if we are to have a science of geometry along with a geometrical view of all reasoning, we need spatiality as a form of mentality.

Once Idealism has subdued the exterior world by idealizing space, it is in a position to rationalize all reality. In the case of Kant, the act of making the world mental was carried on by means of logic, "Transcendental Logic," as he called it. In a certain sense, the whole problem of philosophy as knowledge narrows down to a choice between a subjective or an objective point of view. Knowledge itself, in the form of common sense or in the more exalted sense of science, goes on, draws conclusions and produces results, so that the *de facto* rule of reason cannot be questioned. But how is this relationship between the subject and the object, the knower and the known, to be explained? Either the objective order places its stamp upon the inner one, or the subjective realm sets its seal upon the outer world. If things are dominant, thoughts can only receive impressions from them or make

copies of them. This will produce a Realism with suggestions of Materialism. If thoughts are in the ascendency, the things of the world will assume the flexible form of phenomena and be made or shaped by the thinking mind. This will result in Idealism with suggestions of Phenomenalism. The Idealism of Kant, which had found it possible to make space or the general form of the outer world something mental, did not hesitate to render the whole order of nature a mental product.

If we question by what right the mind is made master of reality, the answer forthcoming immediately is—knowledge. When mind is regarded psychologically as a field of sensations it is hardly possible to do this, since mind in the ordinary sense of that which is related to the body through the brain is obviously a product of nature. But when mind takes on the superior meaning of logical thought to reveal universal and necessary ideas, the source and sanction of thought cannot be found in anything but the mind itself. In the mind of Kant that which the exterior order of nature lacks among other principles, is the idea of connection. The skepticism of Hume had disjointed the natural order when it removed from knowledge the idea of causality, or necessary connection. Now that which the Idealism of Kant attempts to do is to put that principle of causality back into

world, or to provide for the lack of it in nature. Indeed, if it were not for the power of the mind to supply causality, there would be no nature at all!

Reason Rules the World

The transcendental act by means of which Kant as Idealist contributes causality to nature, or imposes its causal rule upon it, is performed by that boldest and most difficult part of the *Critique of Pure Reason* known as the "Transcendental Deduction of the Categories." It is one of the various "impossibilities" of this terrific volume of philosophical literature, yet we need not wholly despair of it. The transcendental act begins by laying hold of the fundamental concepts of the human understanding, which are found in the judgments of logic just as surely as arithmetical products are found in the multiplication table. These are the judgments of Quantity, Quality, Relation and Modality. They amount to quantity on a large or small scale, as also to the ideas of causality and substance. Kant's idea is that nature herself neither counts nor connects, so that the understanding must supply the mathematical calculation and causal connection. This is done by the faculty of judgment, whereby we apply attributes to things and relate the particular to the general, as when we say "iron is heavy," or

"the horse is an animal." In addition to these rather trivial judgments, we form connections of a causal character, when we say that motion is the cause of heat. Now, to know is to judge, to judge is to connect, and to connect in the form of universal and necessary principles is to relate all these judgments to a unified or centralized act of mind in the form of an "I think," which is the hub whence radiate the spokes of true knowledge. This so exalts the understanding that it assumes the position, altho it does not enjoy the range, of omniscience.

Kant expresses this with no lack of confidence when he asserts that "the understanding is the lawgiver of nature." He was aware that his transcendental dictum might seem extraordinary, but having let the mind absorb space and further having directed the categories of the understanding to impose the very conditions of experience, there was nothing to do but let the mind exercise its regency over things. Where could the idea of Quantity come from if not from the calculating understanding? How could nature rejoice in causal connection if the mind did not supply this in the form of sufficient reason? Nature may supply the stuff of knowledge, but the form must come from the mind itself. In so reasoning, an Idealist like Kant seems to have been inspired by the imperialism of his Frederick the Great; aye, he emulates the example

of Louis XIV when Louis identified the State with himself and said, *L'état, c'est moi.*

But there were limits to the transcendentalism of Kant, which he imposed upon his own thought. The regency which the understanding exercises in such a way as to suggest omniscience and omnipotence was confined to the world of appearance, and had nothing to do or even say about the real world of things-in-themselves. The understanding might be absolute, but its knowledge was relative; or the greater the knower, the less the known. Now, while this may seem like an anticlimax to a transcendental system of Idealism, it is about what we have experienced with our modern science, which has proceeded with the assurance of certainty in supplying us with an incredible amount of knowledge, but which is unable to tell us anything about God and soul and is more or less agnostic as to matter and motion. Idealism extricates itself from this difficulty by appealing to reason in its ethical form, or by supplying the demand for what-is by offering an equal amount of what-ought-to-be, which amounts to giving us ideals for ideas. The net gain for the practical mind is a certain confidence in human reason, or a belief in the human ego as knower of the world. We gather from all idealistic procedure that we have a right to believe in reason,

in man, in ourselves, but our gain is on the side of the knower rather than the known.

What Is the Basis of Being?

The philosophical questions which are precipitated by Idealism, especially in its Kantian form, have to do with the grounds of truth as something distinct from its criteria. These questions may be expressed in the form of several philosophical propositions, each of which in its own way attempts to afford the basis of truth. We may say that truths are true because they exist in a material world, which is the belief of materialism. The objection to this physical explanation of truth is that the world of material objects is no place for truths, since it is a world of space and time, whose objects are imperfect and fluctuating. If the geometer depended upon the physical world for knowledge of a triangle, he could never prove the various propositions about triangles which have their place in his perfect science. The material order can corroborate truths which are obtained from and demonstrated by reason; it cannot produce or prove these.

The idealistic answer to the question, "What is the foundation of truth?" is offered in the spirit of psychology to the effect that truths are true because the mind thinks them. Such was the implication of Kant's Idealism when he asserted

that the understanding was the lawgiver of nature. At this point, much depends upon how the term "understanding" is defined. If we take it to mean the human understanding, we are confronted by the difficulty that there was a time when human beings did not exist, and we can hardly imagine that the truths of mathematics and logic, which were discovered by man, could wait for his appearance on earth; for the truths in question seem to have about them a certain timelessness. If, as seemed to be the case with Kant, we refer to understanding in a formal manner as tho it were possessed and exercised by a kind of ideal man, or superman, we are solving our problem in a purely theoretical or symbolic way. The psychological method of founding truth seems as impossible as the physical one.

Absolutism

In its desire to preserve mind as the home of truths, Idealism resorts to the idea of an Absolute Mind as that which thinks the fundamental truths or possesses them as its very nature. Truths are true because the Absolute thinks them. If it be said that we have no reason for believing in an Absolute mind, it will be replied that the demands of truth are such that we have to set up, or postulate, such a mind in order to explain truth. But this would result in a vi-

cious circle, since the idea of truth would depend upon the Absolute and the Absolute upon the idea of truth, altho the Idealist might reply by saying that it is by truth that we know the Absolute while it is by virtue of the Absolute that truth exists. The method cited in this third instance is that of Theism.

A fourth possibility appears in a less definite but perhaps just as defensible form when it is claimed that truths are true, not because they exist in matter or mind, but because they *subsist*, or obtain, in a realm of true relations. This vague realm can be identified further as the World of Being, in distinction from the existing world of matter, which comes to be known by an existent mind. It is an order of being which was disclosed by Plato and is well known to the mathematician and metaphysical thinker. In this World of Being, truths do not issue from matter nor are they produced by mind; they simply obtain as the very foundation of true knowledge and real existence. This true world is very different from the heterogeneous order of existence in which we find ourselves, and in which we become acquainted with a multitude of facts apparently independent. But science tends ever to reduce the heterogeneous to the homogeneous, quality to quantity, and different phenomena like mass and motion, heat and light, gravitation and electricity, to a simplified, uni-

fied field of knowledge, which might be accepted as a promise of the intelligible world of being.

Of the four attempts to find the basis of truth, only the second pair seem capable of sustaining persistent reflection on our part. We may feel for a time that truth reposes in matter, whence we take it to make it our own; but the ideas of universality and necessity are such as to demand something more fundamental than materiality can supply. Again, we may be impressed with the idea that mind, which discovers truth, is the basis of the true; but when mind is taken in its human sense, its origin in time, if nothing else, counts fatally against its being the foundation of that which it discovers. Hence, if we are disposed to follow speculation to the extreme, we are placed where we must choose between apparently rival propositions to the effect that truths are true because the Absolute thinks them, or they are true because they obtain, subsist, or have being in a Platonistic sense. The choice is that of an Absolutism here or a Realism there. It amounts to an interpretation or application of Platonism, or whether we shall have our Platonism in the personal form of an Absolute Thinker or in an impersonal way as Thought in itself.

In order to place this fundamental discussion in fuller, clearer light, it will be expedient first to consider the general claims of modern Real-

ism and then to discuss the absolutistic and realistic claims to define truth.

Realism

The term, "Realism," does not convey its meaning as readily as the words "real" and "reality" might suggest. It is used to indicate the philosophical belief that the things of the world are just as they are presented in immediate perception, in which case we should have a sort of Naïve Naturalism. Or it may stand for a kind of scholastic Realism, wherein universal ideas are taken to be realities, or where, in a more modern way, the laws of nature are things. But the way in which the term "Realism" is used in contemporary philosophy is not so difficult to grasp, even when we have to be content with a negative form of definition. Realism means anti-Idealism, for it is chiefly a philosophical polemic aimed at the traditional notion that to be is to be perceived or to be thought. If Realism had understood its mission, it would have paid less attention to pure theory of knowledge, with its problem of subject and object, and have devoted itself more fully to an analysis of existence as this is given in the forms of physics and psychology. That would have yielded a Realism more worthy of the name. But the Realist seems to have felt that he must rid philosophy

of its idealistic interpretation before the realistic analysis could be carried on profitably.

The Revolt of Realism

In its attack upon Idealism, Realism has made the attempt to drive the mind out of the strategic position in which it was placed by both Rationalist and Empiricist. On the rationalistic side, Descartes and Kant made the "I Think" the first and final factor in all speculation; among the Empiricists, Locke and Berkeley were as insistent upon a sort of "I Perceive" as the fulcrum for the speculative lever. These views seemed to be well intrenched, inasmuch as, in the last analysis, all that one can think or say about truth or reality is that which he finds in his own personal mind. This psychological phenomenon revealed by introspection is something which Realism would discount as far as possible by minimizing its importance or setting it aside as illusion. The realistic point of view has been made more plausible by Behaviorism, which reduces sensation and, indeed, consciousness to negligible proportions; it has been aided by Sociology, which keeps before us the group-mind rather than the punctual impressions of the isolated individual. Under such naturalistic and sociological auspices, it is difficult for the Idealist to keep on talking about the subject and its object, for the pattern which science gives us is

that of many minds touching nature at various points.

In this conflict between Realism and Idealism, or Naturalism and Spiritualism, it is a question whether Idealism, for its part, has understood its mission either. It has reposed complacently in a sort of academic "I Think" without realizing that it is now like a monarch who may still wear his crown but has lost his kingdom. The subjective criterion of truth and reality may still hold in a way, but it is only after the manner of what the Realist calls "the egocentric predicament." Now, the psychological fact that, in the last analysis, all knowledge about the world results in what the individual mind may think about it is more of a "predicament" than a principle, and if the one-time subject of knowledge is to exert a sway at all comparable to that of the law-giving understanding in the Transcendental Philosophy of Kant, it must present as candidate for the office or pretender to the throne a subject of knowledge worthy of the name. Otherwise, the "I Think" is no more than an interloper in the scheme of things generally.

Are the Mighty Fallen?

What did Idealism do when it exalted the thinking subject to its supreme position and made the things of the world imitate it until they themselves seemed mental? It did not put forth

much effort, for it failed to realize that, in the face of nature, vast, complicated and brutal, it is necessary for the inner life of man to assert itself with vigor and by all the means at its disposal—speculative and spiritual, moral and religious. As a matter of fact, these are the ways in which, by means of culture, the inner life of man has been built up. It has a rich and varied content, authentic in form and powerful in intention; but much of this has been lost on the Idealist, who has been content to affirm only the most academic phase of mind, thought, perception and the like. The Idealist has availed himself of the psychological process of cognition, which he has attempted to make the model for both the subject and the object, as he calls them, or of man and nature. It is this kind of idealism which is being driven out by realistic criticism, but there is still an implicit Idealism which may perhaps be developed after the realistic cleansing has done its work.

In a more definite way, it may be said that what Idealism did in establishing itself as the most commanding form of philosophy consisted in exalting and emphasizing consciousness in one or another form. At first, it was consciousness in the substantial form of mind, or that which thinks. Then it thinned out in what Kant called "the synthetic unity of apperception," which afforded knowledge of the object but shed no

light inward upon its own nature, for it was like the eye which sees its object but not itself. Now it has become little more than an "awareness," whose very existence is denied by the psychology of Behaviorism, and whose evidence is made merely circumstantial by Realism. If the mind cannot establish itself by means of its sensations in particular and by consciousness in general, how can it hope to be the foundation of the world? Thus, one might say to the Idealist what the prophet said to Israel, "If thou hast run with the footmen and they have wearied thee, how canst thou contend with horses?"

The idealistic endeavor, which Realism is now seeking to neutralize, consisted in making the mind independent of the outer world, as Descartes did with thought and Locke with sensation, and then making the outer world dependent upon mind. This was done generally by the perpetual assertion of consciousness as the first and last thing about all knowledge of things. It was done more definitely by insisting upon the secondary qualities—the subjective ones, like color and tone. Some Idealists have admitted the existence of the primary qualities of things, like mass, motion and the like, just as some Realists have credited the existence of the secondary qualities. But Idealists par excellence have usually insisted upon the finality and supremacy of the secondary and psycho-

logical qualities of things, while Realists of the first order have been as dogmatic in their assertion of finality and supremacy of the primary, physical qualities.

The Essence of Consciousness

The present situation in psychology and philosophy is such that the defender of idealistic faith must abandon the idea of making consciousness the essence of the world and try to show that it is essential to man. Does consciousness exist? Are there such things as sensations? These are the questions which are more pertinent than the old-fashioned ones which had to do with the relation of consciousness to the world. Now, the strong point, as well as the weak one, in the idealistic argument is that the existence of consciousness has to be proved by itself. When we consider such phenomena as color and tone, must we assume that the nature of the visible and audible is wholly accounted for by the physical presence of that which shines and rings? Or may we venture to believe that a part of the transaction takes place in us, who seem to see and hear? The old Idealism asserted that sensation was wholly psychological; the new Realism is just as insistent in saying that sensation is wholly physical. Thus has arisen a struggle for existence on the part of consciousness.

In reviewing the present situation in philosophy, it seems that we can do no less than assume the presence of an "awareness" on our part when we are confronted by objects which stimulate our sense organs. After nature has equipped us with an elaborate sensory system, it would be a disappointment to learn that we could not participate in such physical phenomena as fall within the range of our senses. We may admit that consciousness cannot create the red color at one end of the rainbow and the blue one at the other, but it can be aware of these colors and the difference between them. Let physics and physiology give their explanation of these color-phenomena in terms of light and the retina, but we must still insist that we are aware of something which has a quality of its own. We verily know that there is a difference between being aware of objects and not being aware of them, just as we distinguish between being awake and asleep. And such differences and distinctions are made on the assumption that there is such a factor as consciousness. In our cynical moments we are prone to assume that most people go through life in a mechanistic way in response to external stimuli, just as we are often forced to admit that we ourselves are as susceptible to the externalities of experience, which seem to make consciousness no more than a sort of luxury on the part of privi-

leged persons like seers and artists. But there is still an undeniable nucleus of sensitivity.

The sensitivity of the mind to both itself and its object has been used by the Idealist to build up, in a most impromptu fashion, a "consciousness" which Realism has been able to attack with such success as to cause retreat if not defeat. Idealism has set up as the subject of knowledge a man of straw. This has consisted of purely psychological material which afforded the self a poor content. It has consisted of crude consciousness, raw sensation, illusions, hallucinations, errors and the like. By appealing to these as the mind's private possessions, Idealism has hoped to establish an independent and characteristic subject of knowledge able to sway the whole world. It has availed itself of the psychological fact that, after all is said and done, there remains only the subjective fact that this or that individual perceives this object or thinks this idea. But that in itself is of slight importance; when that subjective fact is made the basis of a philosophical system, it leads to the Sophistry which makes the individual man the measure of all things. And philosophy was not placed upon a firm foundation until, as in the case of Socrates, this Sophistry was overcome.

When the Idealist makes the appeal to consciousness, as he has done ever since Descartes made his supposed discovery of the self, he is

under the illusion that self-consciousness can be found at the end of a short journey and achieved after a minimum of effort. He should have learned from Hume that the self is far removed from the usual stream of consciousness, from Kant that it is most difficult to assert its existence. It is quite possible that the subject of knowledge, or self, can be found, but that can come about only after an effort far different from the introspective act whereby Idealism has sought to establish the self. Idealism has availed itself of little more than subjective impressionism; it has made awareness the end instead of the beginning of a mental act, and has not realized that the consciousness of selfhood comes into being only after effort. The kind of consciousness which Idealism has had to offer is such as to be seriously threatened by behavioristic psychology and realistic philosophy.

The Man of Straw

The particular appeal which Idealism has made shows itself, first of all, in sensation. It was on sensation as a purely subjective product that psychology was developed from Locke to James over a period of two centuries, as it was upon sensation that Idealism thrived from Berkeley to the idealists of the twentieth century. In dealing with this psychological phenomenon, Idealism has been like the camel which was

allowed to put its cold nose into the Arab's tent but kept on until it was in possession of the entire shelter. For, Idealism began by appropriating simple sensation as something subjective, as was the case with Locke, and ended by taking possession of the whole objective order, after the manner of Berkeley and his long line of followers. It may be possible for mind in some form to exert its sway over the whole world and establish an idealistic order there, but this majestic act is not to be performed psychologically by insisting upon the subjectivity of colors and sounds. For, as far as genuine Idealism is concerned, these may belong to either the subjective or the objective order. If it could be proved that color and sound were subjective, the result, as far as sensations are concerned, would be to make idealists of all forms of consciousness, that of the beast as well as that of man. Now, it is human rather than animal Idealism that philosophy is expected to prove.

In the case of color and tone, which is a typical example of sensational Idealism, our knowledge of psychology and physics is now such that we can discuss the question of these sensations without pondering long over the problem whether the object has the color or whether this is something in the mind. For we know that color is something shared by both the psychological and physical. When the color stands in relation

to the eye, it is the color-quality of psychology; when it is considered in relation to the sun, it is a matter of wave-lengths. If we went on to view it in still other less obvious relations, it would amount to observing the effect of light upon the skin as also upon plants. Naturally, we are interested in light from the standpoint of illumination and coloring, but that is no reason why we should try to build up an idealistic philosophy upon the basis of the one, or retinal, effect which light happens to have. Hence we can no longer repeat the axiom of Idealism that color is nothing apart from the person seeing it. The function of vision is extremely convenient, and the phenomenon of color unusually interesting, but these experiences of ours, brought about so naturally by our contact with the world of things, are not fruitful sources of a theory to the effect that reality is mental.

Idealism fares little better, if not worse, when it sets up its man of straw in the field of perception, especially when the perceptual process, instead of presenting the real object, is so misled subjectively as to create an illusion. The value of illusion for Idealism is wholly negative, since no sensible Idealist would dream of establishing a knowing subject, or self, on the basis of a mind which rejoices in its own, but false, ideas. But what Idealism is after, in its tentative insistence upon the illusion, is independence of the

physical world. Hence if, in the case of illusion, it can be shown that here is a product for which mind and not matter is responsible, it is argued that to this extent the mind is independent. The situation which encloses it is purely psychological, so that if one is desirous of liberating the mind from its usual bondage to matter, one would better urge the psychology of illusion as argument for the mentality of things generally. When the mental state is one of hallucination, and there is not a misconstrued but a manufactured object present in the mind, the degree of subjectivity is heightened, but only as that of significance is lowered. One may get further into his mind, but he is equally far from reality, so that his idealistic victory is an empty one.

The Bent Stick

The classic example of the illusion on which Idealism has staked so much is that of the "bent stick." That is, when a stick, supposedly straight, is seen partly immersed in water, it appears bent, so that the defender of Idealism appears to have another argument in favor of his theory, "The world is my idea." But when one encounters the bent stick, he is not inclined to view the phenomenon with satisfaction. At best, it is only a curiosity to be placed among standardized illusions and an error to be cor-

rected as soon as possible lest the perceiver be misled when he comes to make use of the stick in some practical way. The explanation of this false impression is of no additional aid to the idealist, since the phenomenon is a physical one which is confined to the region of the physical stimulus. As for the bent-stick argument itself, we should realize that our puerility in citing such an example is such that we have no right to scorn and laugh at the less absurd quibbles, as we call them, of the scholastic mind in the Dark Ages. Our modern bent stick is a match for their very worst scholasticisms.

Much the same can be said of errors to which Idealism has appealed with the hope of separating mind from matter. There is no error in the material world, for things are as they are; but when the mind entertains a false view of things, as in its pre-Copernican astronomy and pre-Darwinian biology, it seems to establish its independence of the things it thinks about. But, as in the case of illusion, such a victory is too costly; for why should we strive to set up the independence of the intellect when we have to defend a false notion? The rebellion of the mind against the world will ever be futile unless the mind undertakes what promises to be a successful revolution based upon truth rather than error.

In all the typical instances cited, the phil-

osophical victory is on the side of Realism, which has succeeded in driving Idealism out of a false and foolish position. Realism has succeeded in showing that common consciousness cannot be made the model for the universe, that sensations have their objective status, and that illusions and errors are capable of being explained on a physical basis. A critical or radical Idealism, which seeks a firm basis for its interpretation of reality, sets aside all the usual arguments of sensational Idealism by asserting that, even if they could be demonstrated, they would not afford a proof of that kind of mentality on which Idealism should insist. For a mind whose content was that of superficial consciousness, sensations, illusions and errors would be of no satisfaction to itself, of no value as an interpreter of reality. Such Idealism should be grateful to Realism for having delivered it from its friends.

Quixotic Idealism

The efforts of modern Idealism, ever since the days of Descartes and Locke, have been purely Quixotic. They have been expended in the direction of the object of knowledge as tho it were necessary for thought to defend things. The arguments of Idealism have endeavored to show that thought can affect, if not create, the things of the world when experience shows that these are able to take care of themselves. When

Idealism comes to the realization that its first duty is toward itself, it will cease trying to create the world out of consciousness and try to affirm its own conscious existence. It will do more than that, for it will reverse the effort of the Realist, who has labored to prove the "independence" of the object, and attempt to prove the independence of the subject. There cannot be and never has been any doubt about the existence of things whose stolid, inflexible exteriority has left no room for skepticism. Common experience, to say nothing of analytical science, has so thoroughly impressed the mind with the existence of things that it is only sophistry which allows one to keep on saying, "The world is my idea." It is only an extreme form of philosophy which permits one to give a definition of things in terms of consciousness. We may come to some conclusion concerning the rationality of things after we have duly examined them, and may draw conclusions of an idealistic sort after our analysis has been made. But we cannot proceed immediately from our private impression of things to the conclusion that they are mental like ourselves.

In its defense of the idealistic principle, Idealism must meet the opposition of Realism with much more vigor and system than was the case when Idealism did little more than assert, "The world is my impression of it." Realism was easily

able to destroy Impressionistic Idealism and may be just as formidable with an Idealism of any description, so that the Idealist is placed upon the defensive. In estimating the amount of damage which Realism has done to Idealism, we shall have to go back to the fundamentals of psychology and then distinguish between mind and Mind. If by mind we mean consciousness in the common and inferior sense of that term, we must admit that Realism has pointed out the relative unimportance of such mental functions as sensation, immediate experience, sentience and everything else peculiar to the private stream of consciousness. These inner experiences may charm and nourish the private life of the individual, but they have nothing to do with his conception of the world in any philosophical sense of that term. If we desire, we may say with Amiel, "The landscape is a state of the soul," or we may go on and report after a Symbolist like Melchior de Vogüé, "The world does not exist for me." But when we come out of our Symbolism and seek reality we must use sterner mental stuff by way of interpretation. Then it may still appear that reality, which disdains our minds in their ordinary aspects, will reveal some affiliation with Mind in its major sense.

When Half-Gods Go

If we are to exalt subjectivity, it must be upon the basis of that which has adequate content and proper form. These are not found in a consciousness made up of sensations, impressions, and emotions. What is needed in idealistic philosophy is an effort which can assert the characteristic content of consciousness instead of an easy repose in the immediate subjectivity of impressionism. The factor of effort must be stressed, since the conscious ideas of the intellect have come into being in the same way that the works of the will have been achieved. This change of front from the introspective to the energistic will reveal itself in a change of language, if in no other way. It will speak the language of will as well as that of intellect, will talk about striving after consciousness instead of merely having it, and will employ a cultural rather than a natural way of arriving at conscious ideas. There is nothing mysterious about a consciousness arrived at after effort and elaborated by means of culture, for that is the very thing mankind has had, enjoyed and used ever since man really became man. He has made his ideas just as thoroughly as he made his tools, and has elaborated his theoretical culture by the same means he employed while perfecting his civilization. It is this kind of active consciousness glow-

ing in an active mind which we now possess rather than the dreamy flow of sensations which seems to constitute our inner life.

When we attempt to characterize this achieved and elaborated consciousness which makes up the content of Mind, we can do no better than refer to it as a system of Values. It contrasts strikingly with the inferior scheme of mental Facts, and shows how, when half-gods go, the gods come in. These values, which a Critical Idealism would install in place of impressions, are equivalent to the whole mental life of man as this life has been built up by intellectual effort, or "energy of contemplation." They cannot for a moment be discussed in their rich content, but can surely be indicated for purposes of identification. They are patterns of human culture and may stand for man as man.

The Content of Consciousness

The identification of mental values, whose range is encyclopedic, may be observed in the various Sciences. In order to appreciate these scientific values, we must yield our habit of thinking that science simply records what it finds in the natural order and realize that science formulates data and laws according to a mental plan from which the scientific value is obtained. The great change which has come over the physical sciences in this generation should

apprise of the fact that science is not engaged in copying nature but in formulating a system for the interpretation of the world. In connection with the arts, the same principle of evaluating experience holds true, only with esthetics there is more of the subjective and less of the objective emphasis than in the case of science. Art is something which is created by man for the sake of gratifying the esthetic impulse, whatever it may be—imitation, play, expression. The objective quality of beauty is realized when it is observed that art proceeds outward from some inner tendency to the glorification of matter. That which accrues to consciousness is not so much sensation but esthetic value; not so much perception but a due amount of appreciation. When consciousness is built up in such cultural ways as are afforded by the sciences and arts, it is emancipated from idealistic impressionism and placed upon a more certain foundation.

In addition to these more intellectualistic forms of consciousness, Idealism may observe how the ethical and religious functions have built up a consciousness which means more to man than the natural flux of sensations. It is undeniable that ethical ideals, like goodness and happiness, do not fare forth from the will and take their place in the world alongside the products of science and art; for moral sentiments, even when objectified in institutions like

State and Church, are bound to belong to the order of What-Ought-to-Be rather than to the realm of What-Is. Nevertheless, these ethical forms have the effect of enhancing the content of consciousness so that it is seen to be something more than a field of psychological data. The same may be said of Religion, which, however, reveals a tendency to objectify its consciousness in the form of beliefs in metaphysical objects like God and the soul. But on the psychological side, religion provides for a systematic conception of consciousness, which is easily distinguished from the panorama of impressions out of which the Naïve Idealist expected to build up the existential order. In the psychological laboratory, one may enjoy consciousness in the form of isolated sensations; but in actual life, the very life we live is made up of values or forms of human appreciation which are clearly recognized in moral ideals and religious aspirations.

The same is true of the individual and social life of mankind. We may credit nature with contributing a certain kind of individuality peculiar to organisms, just as we may ascribe to natural forces the formulation of some sort of social existence such as is enjoyed by insects. But when we speak of the human individual and civilized society, we are dealing with elements which man himself has elaborated for his own purposes.

The result is that we are now in possession of a kind of life quite different from that of a bee in the hive or an ant in the hill. Our human life as such is something which we have wrought out after much effort, and which, as yet, exists in an imperfect form only. But the effort toward individual and social life has proceeded to such a point that we may think of ourselves as being conscious in a way that man was not before he developed his civilization.

These various forms of consciousness, scientific and esthetical, moral and religious, individual and social, are sufficient to show that man has made, or is making, the kind of consciousness which has content and which is a far more adequate measure of the world than the raw consciousness of sensations to which the Idealist has kept appealing. It is true that we cannot take this elaborated consciousness and project it upon the world with the idea that it will equal reality, but we can proceed from it as from an adequate basis in our interpretation of the world. At any rate, we can bring ourselves to the realization that the subject of knowledge is not to be taken for granted but must be wrought out by all manner of effort. It has been thus wrought out by man himself in his endeavor to live a human life as such, so that all Idealism has to do is to avail itself of the effort which man has put forth

in his own behalf and use that kind of man as something like the measure of all things.

Does Knowledge Merely Happen?

Just as there is more to the subject of knowledge than Idealism has seen fit to observe, so there is a far richer content in the object than Realism has considered. What we have in philosophy and science, as what we have in common experience, is a universe replete with a manifold of things rather than a mere "object" of knowledge. Hence a genuine realism might better analyze its subject-matter instead of contenting itself with a kind of anti-Idealism which keeps insisting that the object is independent of the subject. The object can be thrown into the epistemological position for a time for the sake of our learning something about the knowing-process; but if one desires to be realistic, one would better forego the desire to disconcert the Idealist and develop the concepts of reality, like substance, causality, matter, mind, just as science ignores the idealistic interpretation of things and proceeds to discover the laws which control them.

Now, it is the contention of the Realist that knowledge is fairly unimportant to the object, so that "knowing the object," instead of making or even affecting it, is something which merely happens to it. It is as tho the object had been

rained on, since the rain would affect the object with its wetness. Or, better, it is as tho a light which shone without heat had so brightened the object as to render it visible. But, as a matter of fact, nothing happens to the object when it becomes the subject of knowledge, for the knowing process which cannot make or affect things has no more power to cause anything to happen to them. When the act of knowledge takes place, as when a new planet is discovered, a new element found or a new principle of motion elaborated, the only thing that happens is something which takes place in the subject of knowledge, the mind of man. When things happen in the universe, we have a physical phenomenon, like an eclipse; when things happen in the mind, we have a psychological phenomenon, like a new theory of gravitation or evolution. Among all the events which transpire in the world at large, where things move, change, divide, unite and the like, there is nothing of a psychological nature unless the mind of man in particular is affected, so that to speak of knowledge as that which merely happens to an object is to express inaccurately the opinion that the knowing process doesn't count in the real world.

If one is indulging the idea that to be is merely to be perceived by man, the realistic notion of knowledge as a simple happening is of some polemical value. When, however, we

place Idealism upon the basis of thought, which deals with ideas that belong together, it may be that the knowing process, instead of being an idealistic tempest in a teacup, will have some bearing upon the real world. If the Idealist persists in trying to make the world look like man and thinks of cosmic transactions in the form of consciousness, he will always encounter that obvious opposition which Realism has voiced. But if, on the contrary, philosophy attempts to make man look like the world by construing his mental processes after the manner of physical laws, it may be that man will assume the form of a microcosm whose knowledge of things at once becomes important.

Picture or Machine?

When we emerge from the pleasant cloud of purely psychological sentience, experience, consciousness and the like into the dry light of logical reason, we shall not be so ready to look upon knowledge as something "accidental," since knowledge of the superior, logical sort appears to be highly essential. The Realist endeavors to set knowledge generally aside by means of fallacies which have been manufactured for that purpose. Prominent among these new fallacies are those of "Exclusive Particularity" and "Definition by Initial Predication." They mean that, to discuss them in reverse order, the

Idealist begins by regarding his object in relation to himself as the perceiving subject and ends by asserting that such a psychological point of view is the only one to be taken. Now, Berkeley did that, and all the Impressionistic Idealists who have followed him have done the same, so that this sort of fallacy is applicable to this sort of Idealism. We know, as far as we may pretend to have knowledge, that such an idealism is not true, since what we have learned about the world in modern times has not been such as to make it a mere panorama for the perceiving mind. The world may look like a moving picture thrown on the screen for our human eyes to delight in, but the effect which we experience and enjoy fails to take into account the machinery by means of which the cosmic picture is produced and projected. It is that very machinery, however, which should interest us more than the picture if we are inclined to take a philosophical view of things.

The Realist professes to be greatly interested in the object of knowledge and has followed the Idealist in putting all reality upon the basis of our way of knowing it rather than upon what it shows itself to be. The philosophical mind would express this by saying that Realist and Idealist alike, instead of trying to analyze reality, have considered the ground of knowing instead of the ground of being, *ratio cognoscendi* instead of

ratio essendi. Apparently the Realist has been concerned with little else than the dialectical location of the object, which, he insists, is not in here among the psychological data but out there among the physical ones. It is still the "object" and is still thought of as the subject-matter of knowledge. It is not reality which may be thought of for its own sake and after its own manner, hence the "Objectivism" in which the Realist would indulge is just as formal in character as the Subjectivism which he would set aside.

Reality does appear in time and space, where it becomes the object of knowledge for the perceiving, thinking subject; but it does not exist and operate for the sake of being on philosophical parade. If we will accept the appearance of things as something significant and cease trying to locate phenomena, whether in the subject or the object, and if we will deny ourselves the delights of debating the advantages and disadvantages of various theories of knowledge—Idealism and Realism, Mysticism and Pragmatism—we may be able to find out what the real world is like. The last generation of philosophic thinkers has been busy trying to find the correct method of knowing things rather than the real nature of the existent world. In the form of epistemology, or theory of knowledge, they have indulged in a kind of philosophical egoism which has concerned

itself with man's attitude toward his problem rather than with the nature of the problem itself. Meanwhile, extraordinary conceptions of matter and mind have been developed by those who never bothered about how much knowledge belonged to the subject, how much to the object. We recognize these physical and psychological notions in Relativity and Behaviorism and regret that philosophy has spent so much of its time discussing the problem of subject-object that it has not been able to devote itself more fully to the philosophical bearing of physical and psychological conceptions.

The Method Unimportant

The way we come to know things affords an interesting problem for speculation, but it cannot compare in importance with that of the nature of things when we come to know them. It is what we know, not how we came to learn about it, which counts. This means that genuine philosophy concerns itself with some sort of metaphysics instead of epistemology, which is such a favorite study to-day. One may develop a theory of knowledge by the use of psychology and logic, but he has no right to project his special method upon the world and regard reality as the shadow cast by the mind. The particular theory of knowledge may be that of Pragmatism, but from this it does not follow that

reality is pragmatic. Or, one may find reality by pursuing a mystical pathway toward it, but this does not prove that reality is "mystical." These epistemological methods are so many rules of thumb which are discarded the moment the real result is achieved.

In the case of Rationalistic Idealism and Empirical Realism, the same difference between the way of knowing and the form of being still holds, altho in no such obvious manner. Idealism uses ideas as its method of finding reality, and then proceeds to regard reality as a world of ideas. Now, the real world may be something like that, but our reason for believing that it is a world of ideas is not based upon the way we come to know it, but on the way it shows itself to exist and behave. As to Realism, it may be said that undoubtedly the world is real, but we believe that because of what it shows itself to be, not because of any objectivistic arguments which the Realist puts forth. Realism is just as formal as Idealism; it does not conduct us to reality in the sense of that which appears in time and space, carries on cosmic operations according to change and causality, and persists in appearing and operating as tho there were some sort of substance in it. Realism presents us with an object of knowledge whose content is made up of materials which it has forced Idealism to restore to the world. If we are to find reality,

we must put our theories of knowledge in their proper place, which is that of methodology, and then by an analysis of what we find in our experience come to some conclusion about the nature of things generally.

What Is Reality Like?

The vastness and variety of the universe are such that one may hesitate even to suggest what reality is like, but the intellectual enterprise of the human mind has been carrried out to such an extent as to warrant some sort of philosophical generalization. Now, the findings of the human spirit in the conceptions of philosophy and science, in the expressions of art and religion, as in the aspirations of morality and social existence, are such as to justify the idea that all reality is based upon Order. We might express this after the manner of science by using the term, "Law," or take it in the specific sense of "Causality"; but as long as we think of the real in terms of orderliness of relation and operation we shall not go far astray. The full realization that such order or law or relation is the very genius of reality will relieve our minds, which are likely to be disturbed by the conflict over the subjectivity and objectivity of things.

We are impelled to place an order of some sort at the heart of things by the very exigencies of action. We can well imagine that the primitive

mind, often confused by the subjectivity of dream and fancy within and brutal facts without, came to the realization that there was a certain regularity about the world which made things shape themselves in a definite manner and urged them to conduct themselves according to some sort of plan. The primitive mind learned what was meant by "the way things are" and "how things go," for things exist and operate by virtue of an orderly principle without which they could not exist. The same impression of order arose and still obtains in the field of perception. We glean flying impressions of things and in the freedom of consciousness outline their possible forms and modes of action. But when we come to perceive objects, we are brought to the realization that it is only by following a set plan that we are able to lay hold of them in their abject reality. One may think of a tree and draw a picture of it, beginning with the branches and ending with the roots; but when he perceives the tree as a growing thing he must follow the set order of root, trunk, branch. Or one may let his fancy form the image of a house in the order of roof, wall and foundation; but the actual perception of that object calls upon him to reverse the free order of the mind and perceive the building as something set up in obedience to the law of gravitation. Both action and perception

call upon the mind to recognize something which is neither subjective nor objective, but real.

When, instead of having before us an undefined "Object," we have reality in the form of Order, we are in a better position to consider the question of epistemology, or our way of knowing the world. We might resume the Idealist-Realist controversy and continue to debate in terms of the subject or the object, but it seems wiser to cast about for a principle which both subject and object have in common. This is found in Space, or spatiality, which is the space of geometry. We might attempt to think of things generally as though they enjoyed a kind of mysterious being, no inkling of which can come to the mind of man, just as we might try to think of the mind as tho it employed some sort of esoteric interpretation of the world, as in a way is done by the mystic; but we may lay hold of the world and initiate our interpretation of it by means of geometrical insight, from which, perhaps, deeper and more satisfactory views may be developed.

The Geometrical Form of Things

The intellectual achievements of the human mind, as these are now recorded in the history of science, have been brought about by reason of the fact that space is in some sense subjective, ideal, mental. The discovery of this traces back

to Kant, a century and a half ago, but the general consciousness of it arose with the very beginnings of knowledge. How was the mind to get in touch with the world and how work out mentally a plan which later could be carried out in material ways, as in the manufacture of objects? The answer to this question is—by means of space. Kant, as we have seen, decided that space was a form of perception so fundamental that before any particular object could be located as here or there, the mind must be in possession of the spatiality which anticipates the coming of the object. He argued, further, that after every object in space has been removed from the mind, the general sense of spatiality remains, so that it is as tho the walls of the intellect were spatial ones. But Kant was doubtless too ambitious in his treatment of what he had discovered, for he proceeded to the conclusion that space is nothing but a subjective way of representing the world whose real nature is unknown to us. The spaced world, aye, the whole scientific cosmos which we come to know, is not a land which we discover but only a map which we draw. Space is the form which things assume when we look at them, but when we look for them we discover only the picture of them which we have patterned for ourselves. What a price this victory over the world has cost us! It does not allow us to peer into the depths of

things, but forces us to be content, Narcissus-like, with the reflection of our own image on the surface.

But when we bear in mind that reality, as far as our science and philosophy, our art and religion have been able to make it out, is Order, we are in a better frame of mind to consider our space. This spatiality, which has made all our thinking follow a kind of geometrical method, is the way in which we mortals intuit, interpret and lay hold of things generally. What we reason out as order we represent in the form of space; we do not copy the objective spatiality of things in the form of subjective spatiality, as tho we saw the world in miniature. No, we take the world as a system of orderly relations and treat these after the manner of geometry. We get the real world, but lay hold of it in our own manner, which is the spatial one. If, instead of being mortals, we were Greek gods, we might intuit the order of the world in some other manner, as that of pure relations; but since our finitude is such as to limit us to a spatial way of apprehending the real, we should rejoice in the geometrical insight which we are able to exercise.

As to the Order which our knowledge represents to us spacewise, we can conclude that, unless all human knowledge has been chimerical, it is a true view of things. It is this Order, discovered originally in simple perception and

direct action, which the ancients developed in the form of Ideas, or concepts, and the same Order which moderns have elaborated in the form of Laws, or relations. Doubtless there is much difference between the ancient notion of intelligible things and the modern idea of rational relations, but both their philosophy and our science have insisted on the general principle of Order as the animating spirit of reality.

Reality a Rational Order

The principle of Order, which we come to feel as the very sense of reality and on which we act as in accordance with the real rule of things, is none other than Reason. For, if things are to exist and interact in such a way as to constitute a universe, their existence and action must be supervised and directed by a logical *modus operandi*. We say, "must be" so supervised and directed when we are in no position to dictate the terms by which things are and do act. But we are so placed philosophically that we can affirm Reason to be the principle which constitutes the essence of things and guides their activities. We are put in that position by what we know, especially from what we have learned from science in its extended and consistent analysis of the nature of reality. From science, which is only an extremely careful examination of things, we learn the geometrical pattern of real-

ity and the logical form of behavior which things forever manifest. Things may exist by virtue of some principle of which we have never dreamed and may act in accordance with a rule so secret that we have no idea of it. But the appearance of reality, as we gather this from experience, is such as to justify us in assuming the presence of rational order as that without which things could not be or act.

The things of the world do indeed appear to be different from the thoughts of the mind, so that we cannot assume that they are working out geometrical propositions and drawing logical conclusions any better than we can assume that we are thinking things. Reality itself is bound to remain such a mystery that we cannot answer, or even justly ask, the question, "Why are there things?" or "How did things come to exist?" We cannot for a moment hope to deduce the idea of reality from any category of being which we have; we cannot think of the real as something "given" in the way that a particular object is presented to perception. In fact, we cannot think any aboriginal thought about the existence of things, altho we can rest assured that that which shows itself in time and space, makes fruitful appeal to our perceptions, responds to our activities and carries on its cosmic operations is not any mysterious "Thing-in-itself" or a mere idea in the mind as a sort of

"Idea-in-itself," but the real world whose reality is known to us. Nor need we indulge in a Platonism and thus assert that the ideal is real, however suggestive and heartening such a form of speculation may be; but we can assume, if not assert, that the real is the rational and that it has to be rational in order to be real.

The difference between the things of the world and the thoughts of the mind is not to be overcome merely by speaking of reality as something rational and then claiming that we are in possession of the same principle of rationality. But, altho the difference between thought and thing, object and subject, will ever remain, it does not follow that we are destined to remain in ignorance of things. Things do not express themselves in an unknown tongue, but in a foreign language which, however, we are able to translate. It is not that the language of thought, so to call it, possesses exact cognates of the language of things, or that our human translation of the real language is exact; it is as tho our thought, in its philosophy, science and general culture, was able to give a good rendering of reality, so good as to assure us that we can gather the meaning of the real.

The Unity of Things

The meaning of the real, as we are calling it, is expressed in the vast and multifarious body of

knowledge which now makes up our science. Philosophy, however, desires more than data, relations and extensive theoretical conceptions, like the conservation of energy or the unity of gravitation and magnetism. What philosophy wants and has aimed at from the very beginning is a singular and sufficient principle of real thought which will express the Unity of Things. When this desire to find Unity is looked upon lightly, it will appear to be a vain attempt to get to the top of things and from this as a vantage-point exercise omniscience. But when the quest for Unity is regarded more soberly, it will appear to be neither more nor less than a normal desire on the part of the speculative mind, which desires to obtain corroboration of those evidences of Unity which it has been finding from the beginning of knowledge. Science, which has never shunned the burden of discovering the truth about particular things, has been almost as conscientious in attempting to account for them generally upon the basis of "Matter" or "Energy." All things exist, it says, by participating in this matter; all operations go on by virtue of the universal energy. Now, we need not credit these special attempts at unification, but we can approve of the motive which has led scientific speculation to indulge in such generalities or to make use of them as hypotheses. We can assume the normalcy of

science in its attempt at unification and, further, can observe with care that the procedure of science has been such as to round out the circle of reality, whose special arcs have been traced here and there in approximating to what is now called the "Uniform Field of Relativity."

The only question which philosophy can raise in the presence of the scientific Unity of Things is that of its character and completeness. In dealing with the idea of Scientific Unity, philosophy must begin by expressing gratitude to science for investing the abstract idea of Unity with definite content, but must further confess regret that science has been unable or unwilling to yield more than a coarse Unity of Things. There is apparently a physical Unity by means of which things exist and act, but it is not so apparent that this is the Unity which we may set up as unified reality in its fulness and richness. What we desire to include and have participate in the benefits of Unity is the mental, since the thoughts of the mind as well as the things of the world are worthy of a place in the total system, especially as it has been by these thoughts of the mind that the theory of Unity has been worked out.

Philosophy cannot assume to give a "proof" of the Unity of Reality, but it can continue to speculate about it until it finds a principle which seems appropriate in form and adequate in char-

acter. Proceeding in this manner, it is now in a position to affirm that the desired unity is not so much the coarse, materialistic one suggested by the physics of the nineteenth century, but the finer and more spiritual one indicated by the nature of the physical world as the latter is understood to-day. The tentative results of physical science in its attempt to get at the nature of the universe are to be appreciated chiefly by those who are adepts in these things. The lay mind, however, may participate in these speculations to the extent of something negative at least. It can observe with satisfaction that the material world is not as forbidding in its impenetrability as it seemed a generation ago, since apparently it is not built up of indivisible units of matter but is finer and lighter in its construction. It can be likened to a "world of waves" rather than to a field of solids, and may be thought of as non-infinite in its geometrical extent. It can be considered with somewhat the same freedom and comfort that are felt when philosophy conducts its speculations, as tho the concretely physical and abstractly metaphysical were not far apart.

What both science and philosophy, matter and mind have in common is the principle of Reason. It is by means of rationality that things enjoy their existence and carry on their operations, just as it is by means of Reason, in the form of

consciousness, that the nature and activity of those are known. When we view the world in its astronomic form, it might seem as tho things existed by their very size. When we consider the way in which its energy expresses itself, it might appear as tho strength were the essence of reality. But we come to realize that the extent of things is something of a geometrical character and that the force of things expresses itself along the lines which geometry lays down. So that it is not by size, it is not by power that things exist, but by the spirit of rationality which invests them and informs the mind about them. If we consider the things of the world here and the thoughts of the mind there, we seem to have two lines of procedure before us; but when we observe further that things exist in a rational order just as thoughts when they are true follow the same principle of rationality, we realize that there is the very closest analogy between being and thinking. Both must heed the voice of reason, which is put forth in matter and mind alike.

The Real Absolute

Philosophy saw this at the beginning when Parmenides intuited the unity of thinking and being, and immediately identified them. Philosophy has always looked upon the real as some sort of expression of the rational, altho often it

has upheld this notion as a pure ideal. Its feeling that the real was the rational was expressed significantly in the term, "noumenal," or mind-like, which it used to indicate its sense of fundamental reality. It has not thought of this real-noumenal as something immediate in perception or obvious in character, but has regarded it as something difficult to discover. With Plato, the discovery of the noumenal-real was to be made only after effort and perseverance; with Kant, it was looked upon as impossible, except as the mind, having come to the end of its course in the world of appearance, abandoned speculative reason and availed itself of the powers inherent in the moral will. Others who have speculated in less commanding ways have pursued this noumenal reality with the same effort expressed in other forms, as in poetry and religion. And since philosophy from the beginning has been a quest for the real-rational, there is no reason why we should try to look at it in any other way.

When, finally, we attempt to state the nature of ultimate reality, we are persuaded to do so in terms of rationality generally. But instead of leaving philosophy with a general principle spread out broadly but without much depth, we find it expedient to connect rationality with mind and mind with the Absolute. If we persist in the manner of Subjective Idealism, which attempts to make the grounds of both knowing

and being something peculiar to the human mind, we shall end where we began—in pure phenomenalism, or a world of seeming. But if we take our human way of apprehending reality to be no more than a hint of its essential nature, we shall be in a position to regard the whole spectacle of things as something which exists and expresses itself by means of none other than Absolute Mind, or God. The sense of this notion may be expressed by saying, not "The world is my idea," but "The world is God's idea."

But the real meaning of that which is put so directly cannot be enjoyed if we take the astronomic universe to be a picture in the mind of God, for that would only give us our human world on a large scale. Nor can we follow Pascal when he said, "God geometrizes," as tho the Deity merely anticipated Euclid or Riemann in laying hold of the spatial aspect of the real. It is doubtful, further, whether we can regard the Absolute as sustaining to the universe a relationship comparable to that of Plato or Spinoza, who viewed things in the form of unified being. But, even when we cannot indicate the special manner in which the Absolute lays hold of reality, whether as a picture or a mathematical proposition or a philosophical system, we can still maintain the notion that in and behind the cosmic system is that Absolute Mind without which it could not exist, still less be known.

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